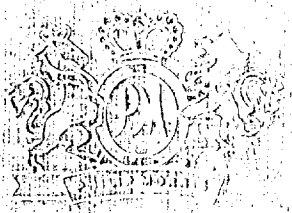
[redacted]

QUARTERLY REPORT



PHILIP MORRIS EUROPE

RESEARCH AND DEVELOPMENT

2003 NEUCHATEL / SWITZ[redacted]

2021607417

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

JULY – SEPTEMBER 1988

STRICTLY CONFIDENTIAL

Distribution:

Messrs.
G. Bible
A. Buzzi
S. Darrah
G. Diserens
J. Guyot
K. Houghton
R. Lively
T. Osdene
E. Stoop
W. Thoma
K. Ware

2021607418

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

TABLE OF CONTENTS

SUBJECT	AUTHOR	PAGE
RESEARCH		
Microbiological Analyses	Hofer-M.	1
Europ	Kälin-P.	3
Aquarius	Renaud-J.M.	9
Pesticides	Amati-D.	14
Deimos	Bindler-G.N.	20
Rhea	Pestlin-S.	23
Hydra, ETS	Gerber-C.	25
NIRA	Moser-F.	28
Order	Murray-M. Moser-E.	30
Orion	Pestlin-S.	31
Pack	Lauper-G.	33
Analytical Investigations	Murray-M. Genoud-Y. Lauper-G. Moor-Ph.	37
PROCESS DEVELOPMENT		
Caiman	Lüthi-N.	41
Courbet	Wood-C.	43
Dali	Borgognon-D.	45
Degas	Borgognon-D.	46
Miniprimary	Borgognon-D.	47
Picasso	Lüthi-N.	52
Pissarro	Lüthi-N.	54
Tobacco Process Quality (Giotto)	Frattolillo-A. Wood-C.	56
Toyo	Lüthi-N.	59
Trial-ETB/FTR	Lüthi-N.	60
Turner	Frattolillo-A. Wood-C.	61
Velasquez	Wood-C. Pulfer-P.	64
Weasel	Lüthi-N.	71

2021607419

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

TABLE OF CONTENTS

SUBJECT	AUTHOR	PAGE
NEW PRODUCT DEVELOPMENT		
Product Innovation	Abdelgawad-A.	72
Product Innovation	De Zuanni-M. Braem-D.	76
Cigarette Development EEC	Chemla-M.R.	80
Cigarette Development EEMA	Lizzi-R.	84
Flavour Development	Fatton-J.P.	87
Studies and Modelling	Badertscher-T.	91
QUALITY ASSURANCE + TECHNICAL SERVICES		
Material Testing	Kürsteiner-C.	97
Cigarette and Smoke Analysis	Senehi-F.	100
Tobacco Monitoring	Orsan-G.	106
Analytical Services	Turpin-D.	109
Visual Quality Audit	Jacquet-R. Morelli-M.	116
Subjective Cigarette Evaluation	Monnin-E.	118
Infestation Control	Freymond-J.M.	120
Quality Engineering	Henry-P. Morelli-M.	122
MANUFACTURING SERVICES GROUP		
Ingredients, Casings & Flavors	Schwarb-A.	124
Foam Binding	Schwarb-A.	126
Ingredient and Material Evaluation	Flury-C.	127
Product Modifications (Licensees)	Kopp-A.M.	133
Product Monitoring and Changes (Affiliates)	Bel-T. Flury-C.	136
EDP SUPPORT		
Computer Applications	Clark-D.	138

2021607420

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607421

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : RESEARCH

SUBJECT TITLE : MICROBIOLOGICAL ANALYSES

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Hofer-M. (MIH)

KEYWORDS : Cochise, invert-sugar, taste, ivory-coast, senegal, subtilis, spores, yeasts, molds

---

COCHISE

At the request of QA-Analytical services [1], the microbial quality of cochise samples from a potential new supplier was investigated [2]. Water activity (aw) values of about 0.6 were found for the new supplier samples compared to (aw) of 0.3 in FTR and US supplier Neal products. For (aw) below 0.6 the microbial risks are low, with the exception of certain osmotolerant fungi. The microbial profiling of the samples revealed a relatively high bacterial count of 3×10^7 per gram. Values are however comparable to results obtained recently on FTR samples. An average of 6×10^3 yeasts/gram was found in the new supplier samples but none in the controls. This spoilage could result from a contamination of the shell before grinding or could have evolved in the final product. Microbial changes in samples will be checked during storage.

INVERT SUGAR

Three invert sugar samples ex PMG-Berlin taken from gas producing drums were analysed for their microbial content [3]. Less than 100 microorganisms/gram of sugar, including 30 yeasts, were found. This microbial contamination cannot be considered to be responsible for the formation of gases.

ML EX SENEGAL AND IVORY COAST

Taste differences between ML cigarettes produced in Senegal and Ivory Coast from the same US BBS were reported [4]. At the request of EEMA [5], both cigarettes were analysed for their microbial content in order to determine a possible microbial implication.

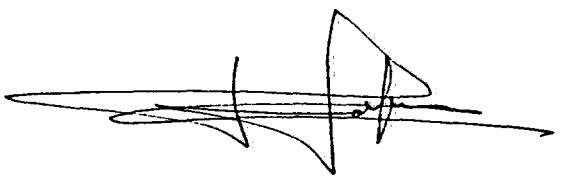
2021607422

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

The microbial content of ML ex Senegal was similar to ML ex FTR i.e. 2.5×10^5 bacteria/gram, 40% spores and 95% B. pumilus. With ten times more bacteria (2.3×10^6), 100% spores and 97% B. subtilis as the predominant strain, the profile of ML ex Ivory Coast was completely different. B. subtilis, normally a minor strain in tobacco, is known to supplant the other strains if propitious humidity conditions are met. Following this indication, storage conditions of cut filler in Ivory Coast primary (more than 2 hours at OV of 20% before drying) could be identified as a critical processing step [6].

REFERENCES

[1] Note from Schulthess-D. to Fink-W., Cochise, July 21, 1988.
[2] Memo from Hofer-M. to Schulthess-D., Microbial analysis of Cochise, September 8, 1988.
[3] Memo from Hofer-M. to Aligizakis-G., Analysis of suspected invert sugars from PMG, September 3, 1988.
[4] Personal communication from Butticaz-B. to Hofer-M., August 25, 1988.
[5] Telefax from Hofer-M. to Butticaz-B., Microbiological analyses of Senegal and Ivory Coast ML cigarettes, August 30, 1988.
[6] Personal communication from Butticaz-B. to Hofer-M., September 23, 1988.



2021607423

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : EUROP

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Kälin-P. (PAK)

KEYWORDS : bacteria, bacillus, biocontrol, rl, sel, preservative, d-alanine, spore, vegetative-cell, germination, burley, virginia, oriental

---

OBJECTIVE

To control the germination of bacterial spores during tobacco processing and the bacterial proliferation in the RL process in order to replace traditional preservative systems by a biocontrol agent.

STATUS

D-alanine, D,L-alanine, propyl paraben and decanoic acid were evaluated as inhibitors of B. pumilus spore germination. Germination of B. pumilus spores was studied in different tobacco extracts.

Trials to simulate SEL spoilage under the conditions of the RL process in the laboratory were performed.

RESULTS

Germination inhibitors

The efficiency of D-alanine, D,L-alanine, sodium propyl 4-hydroxybenzoate and decanoic acid as inhibitors of B. pumilus spore germination was investigated in ML cut filler and RL feedstock extracts incubated at 37°C. The germination was measured by loss of absorbance at 660 nm after inoculation by B. pumilus spore suspension [1].
The inhibitory activity of D-alanine in SEL (Fig. 1) was similar to that obtained previously in ML cut filler extracts [2]. The racemic mixture D,L-alanine appeared to be less efficient than the D-enantiomeric form (Fig. 2). After 24 hours incubation, however, bacterial growth was measured in most of the trials,

2021607424

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

even those treated with 900 ppm (10 mM) D- or D,L-alanine. Under these conditions, D-alanine appeared more as a germination retardant than a strict inhibitor.
The question of the efficiency of such systems in the RL process is raised. The answer requires simulation experiments under the process conditions and with the bacterial strains involved in SEL spoilage.
Figures 3 and 4 show propyl paraben and decanoic acid inhibition of B. pumilus spore germination on ML cut filler extract. The minimal inhibitory concentration (MIC) is between 100 and 200 ppm for propyl paraben and between 10 and 50 ppm for decanoic acid after 24 hours of incubation.

SEL simulation

Experiments were conducted to reproduce the SEL spoilage under lab conditions in order to isolate the specific contaminating microorganisms.
RL feedstock received from C Pilot Plant in Richmond was extracted (ratio 1:10) with de-ionised water at 80°C for 20 minutes. The fresh SEL was filtered into sterile flasks and incubated at 55°C and 120 rpm. Samples were collected over time, the pH measured and variations of bacterial populations were analysed. Concentration of isovaleric acid reported to be a good indicator of spoilage [3] was determined by GC [4].

Three different trials were performed. None showed any spoilage of the SEL after 30 days. Total number of bacteria and pH both decreased gradually. Concentration of isovaleric acid, not detected in the fresh extract, was about 3-6 ppm after 30 days.

Tobacco extracts

Burley, Flue-cured and Oriental tobaccos as well as ML cut filler and RL feedstock were water extracted (ratio 1:10) at 20°C as described previously [2].
B. pumilus spores were inoculated in the different extracts and the germination kinetics recorded during incubation at 37°C. In Flue-cured and Oriental extracts, germination did not occur even after 24 hours incubation (Fig. 5). Rapid germination kinetics were recorded in Burley and to a lesser extent in SEL and ML cut filler extracts. As nitrate in Burley can be considered as a germination activator [5], Flue-cured and Oriental extracts were supplemented with NO_3^- (0.1 - 0.5% w/v) and checked for germination. No positive effect could be recorded. This leads us to presume an inhibitory effect of Flue-cured and Oriental rather than an activating effect of nitrate in Burley extracts. This was confirmed by cross-mixing and diluting the different extracts and testing them for germination (Fig. 6).

2021607425

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

CONCLUSIONS

D- and D,L-alanine delay spore germination in ML cut filler extract and SEL, but are not absolute inhibitors.

Compounds present in Flue-cured and Oriental but not in the Burley extract seem to have inhibitory effects on germination.

No spoilage of the SEL could be simulated in lab scale experiments at 55°C.

PLANS

- Evaluate the effect of D-alanine on bacterial strains isolated in Richmond from spoiled SEL.
- Investigate the inhibitory effects of Flue-cured and Oriental tobaccos on B. pumilus spore germination.
- Compare the effects of different germination inhibitors in the SEL.
- Repeat the trials with propyl paraben and decanoic acid in order to confirm the exact MIC for germination.
- Test the stability of D-alanine over time in tobacco extract.

REFERENCES

[1] Hofer-M., Kälin-P., Quarterly Report, project EUROP, January-March 1988.
[2] Kälin-P., Quarterly Report, project EUROP, April-June 1988.
[3] Uydess-I.L., project 1730, Monthly update, February 26, 1988.
[4] Zwahlen-A., Isovaleric acid analyses, project EUROP, September 23, 1988.
[5] Levinson-H.S. and Freherry-F.E., Influence of cations on nitrate-induced germination of Bacillus megaterium spores, Spores VI, East Lansing, 1971.

2021607426

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Fig. 1

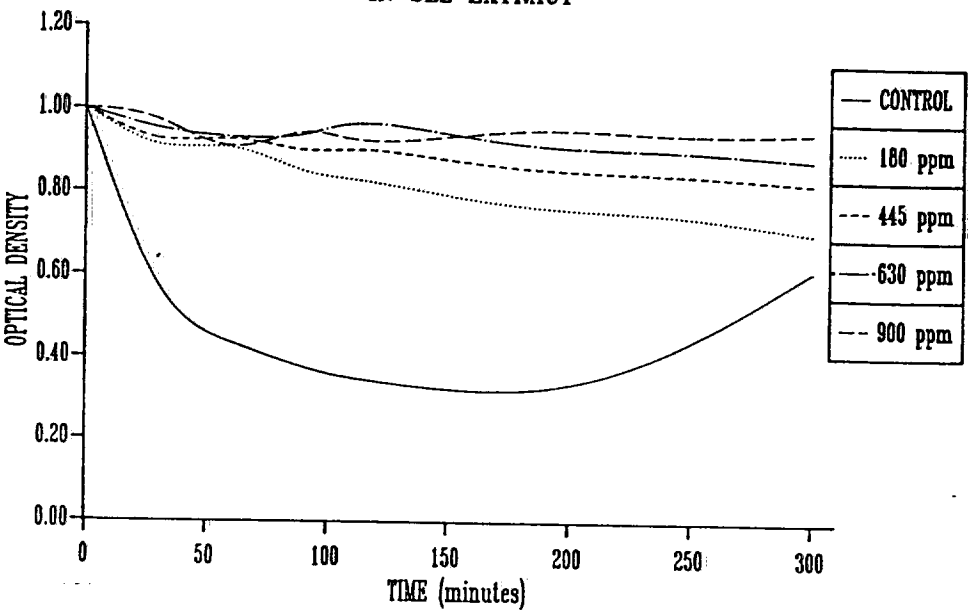
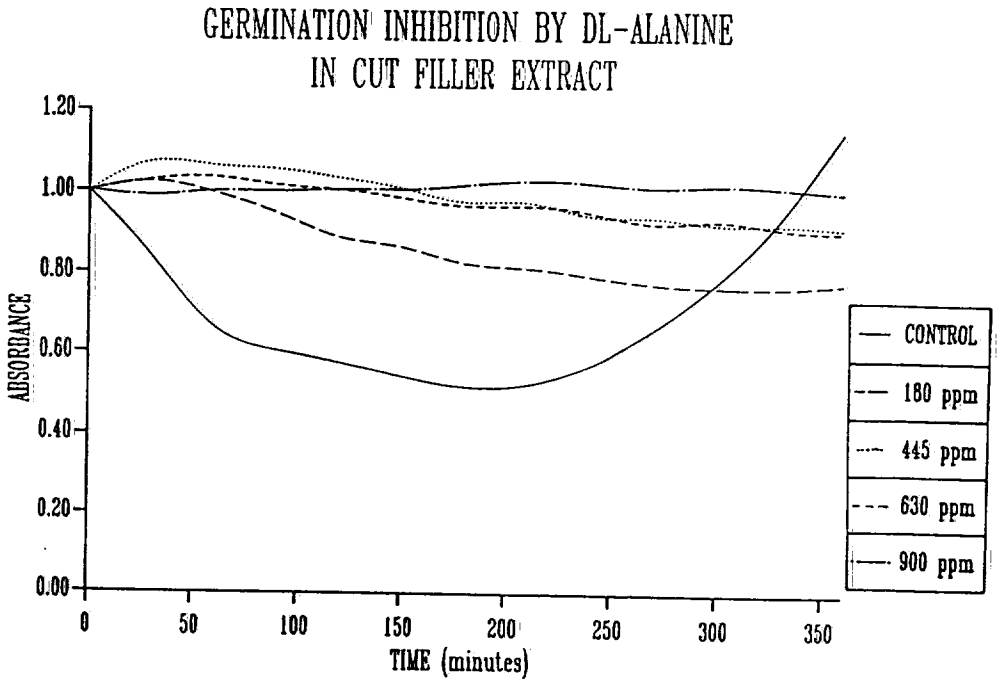


Fig. 2



2021607427

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Fig. 3

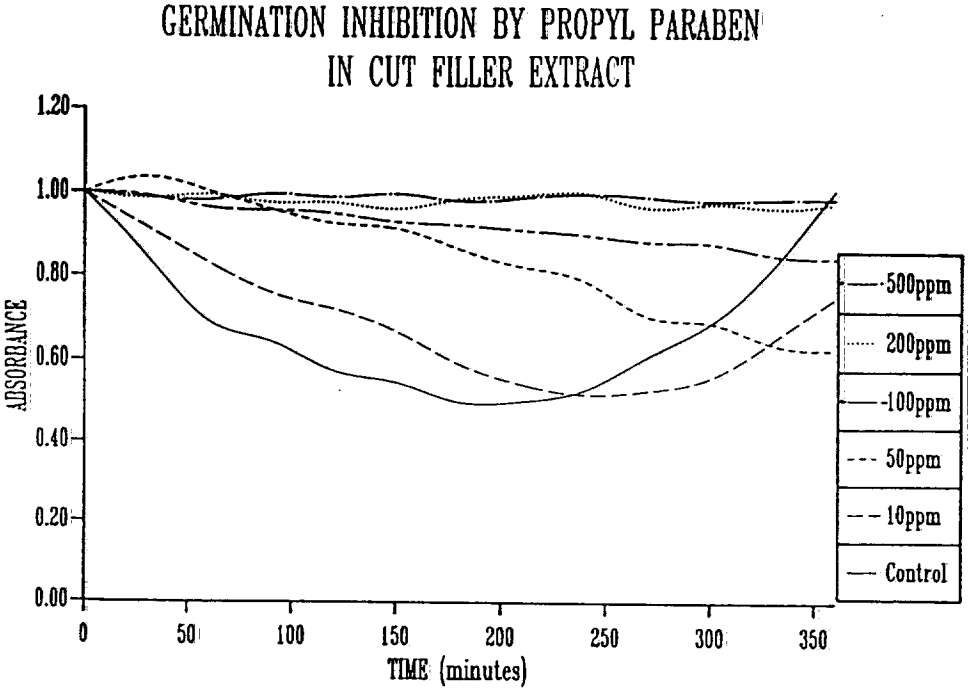
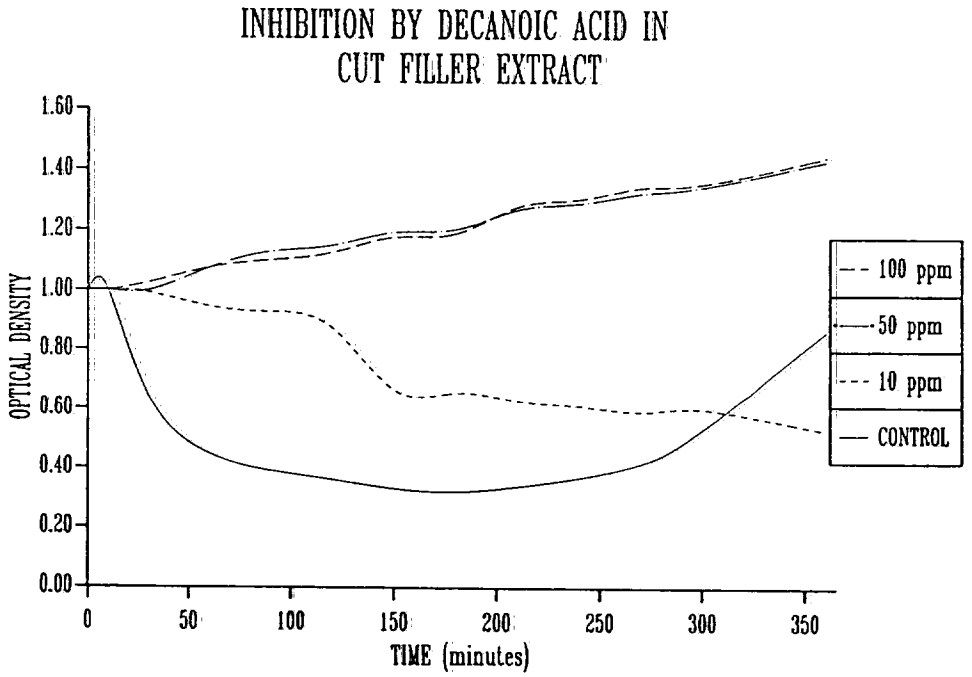


Fig. 4



2021607428

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Fig. 5

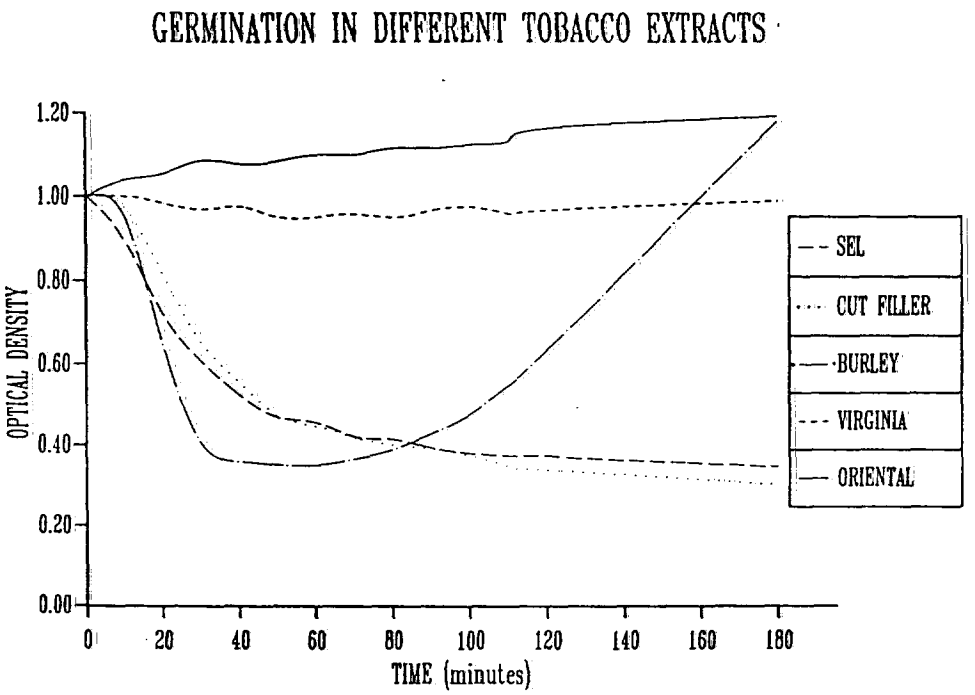
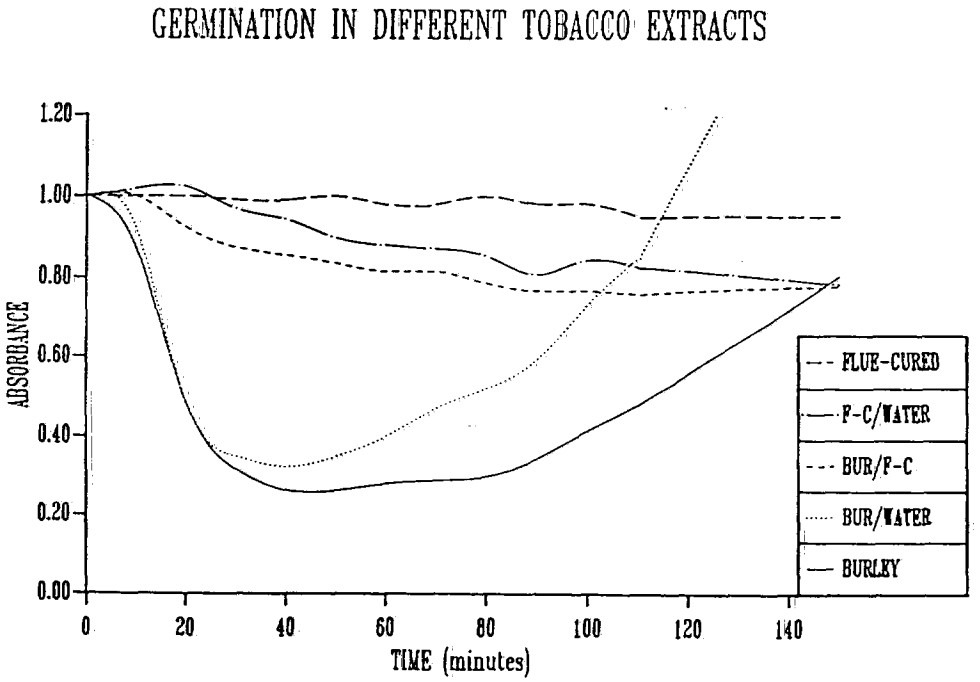


Fig. 6



2021607429

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : AQUARIUS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Renaud-J.M. (JMR)

KEYWORDS : humectant, humectant-survey, germany, sorbitol

OBJECTIVE

To perform a regular survey on the use of humectants in brands of the EEC and EEMA regions.

STATUS

Six-month survey of humectants in DB brands

A routine survey of glycerin, propylene glycol and sorbitol in the leading DB brands was performed with samples bought on the market in July 1988. Glycerin and propylene glycol results are summarized in Tables 1 and 2 and illustrated in Figs. 1 and 2. Sorbitol was detected only in R6 (1%). As compared to the 1987 surveys, no change in the glycerin content was found. However, a slight increase of propylene glycol could be detected in REE brands. These propylene glycol values are comparable to the values found in February 87 [1].

Sorbitol determination

A gas chromatographic procedure for the determination of sorbitol in filler was developed. The method is applicable in the range of 0.1-5% sorbitol. A PME analytical method has been written.

REFERENCE

[1] Memo from Renaud-J.M. to Speck-M., August 26, 1988.

J.M. Renaud

2021607430

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

TABLE 1 : **GLYCERIN CONTENT OF GERMAN BRANDS**

Brand	Company	Feb. 1987	July 1987	Dec. 1987	July 1988
Marlboro	PM	2.2	2.2	2.6	2.2
HB	BAT	0.1	0.4	0.5	0.6
Camel	RJR	1.8	1.8	2.2	2.0
P. Stuyvesant	REE	0.0	0.0	0.1	0.1
Lord Extra	MB	0.0	0.1	0.1	0.1
West	REE	0.0	0.0	0.1	0.1
Ernte 23	REE	0.0	0.2	0.1	0.1
R6	REE	0.0	0.0	0.1	0.1
Lux	MB	0.0	--	0.1	0.1
Krone	BAT	0.0	0.4	0.5	0.4
Prince Denmark	BAT	5.8	4.2	5.1	4.9

2021607431

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

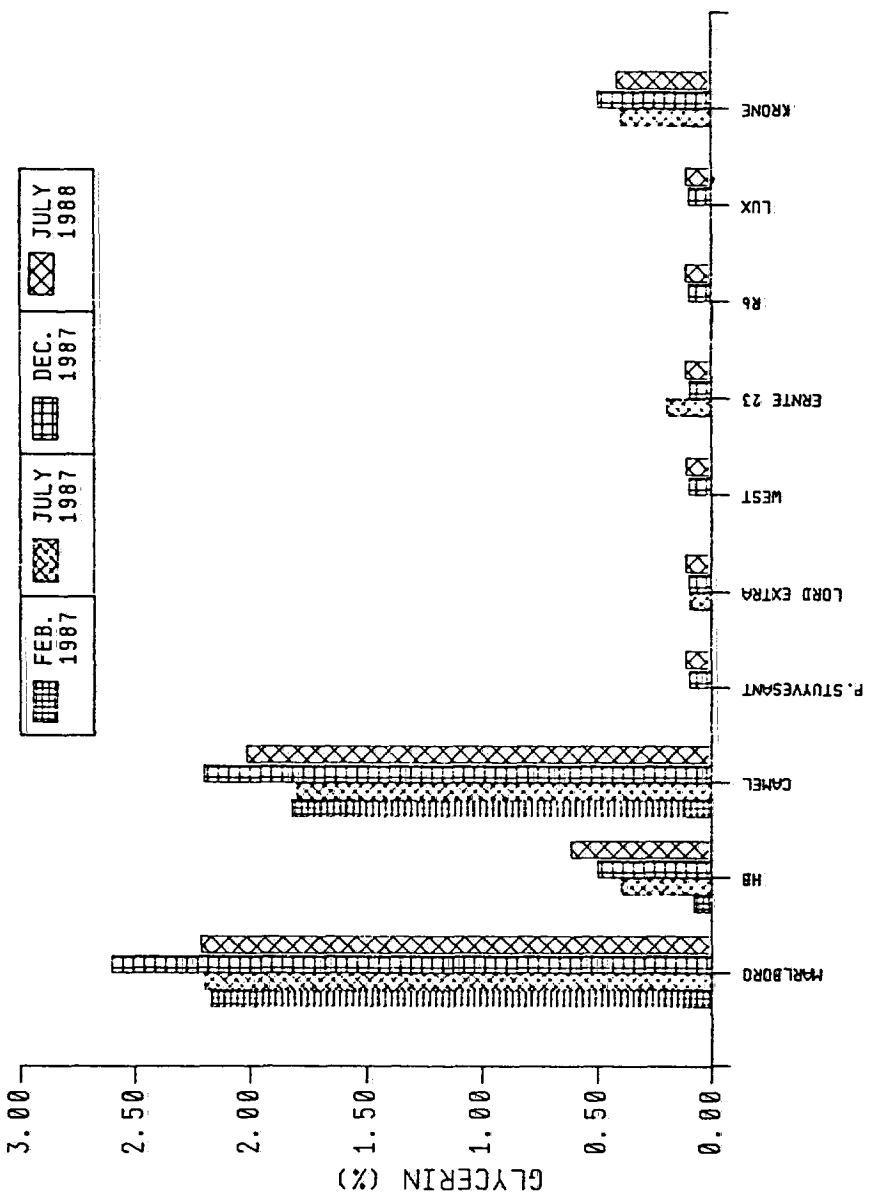
TABLE 2 : PROPYLENE GLYCOL CONTENT OF GERMAN BRANDS

Brand	Company	Feb. 1987	July 1987	Dec. 1987	July 1988
Marlboro	PM	1.7	1.6	1.8	1.6
HB	BAT	2.3	2.4	2.1	2.1
Camel	RJR	0.7	0.7	0.8	0.8
P. Stuyvesant	REE	2.0	1.5	1.4	1.8
Lord Extra	MB	1.6	1.2	1.2	1.6
West	REE	1.8	1.6	1.7	1.8
Ernte 23	REE	2.3	1.5	1.7	1.9
R6	REE	2.1	1.3	1.5	1.8
Lux	MB	1.8	--	2.2	2.0
Krone	BAT	2.3	2.4	2.4	2.2
Prince Denmark	BAT	0.0	0.0	0.0	0.0

2021607432

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

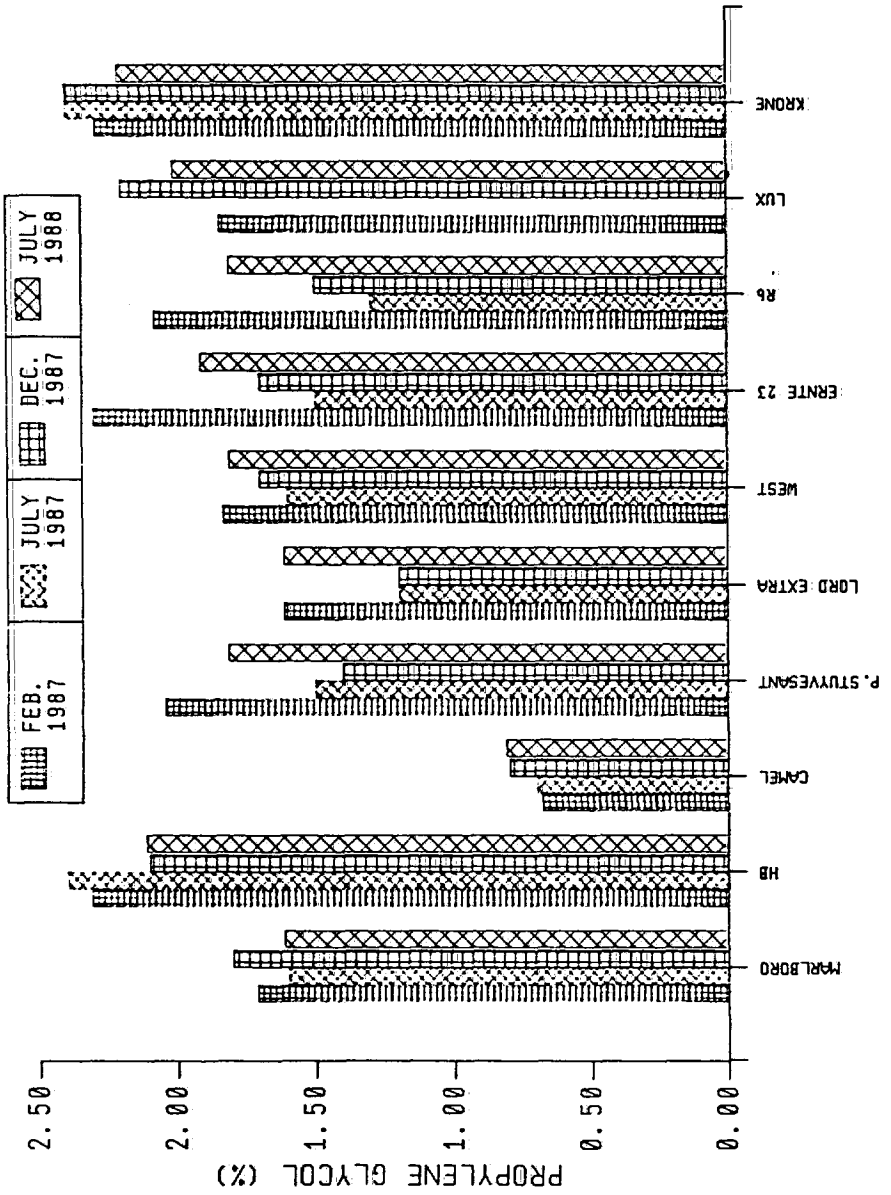
FIG.1 GLYCERIN CONTENT OF GERMAN BRANDS (1987/88)



2021607433

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

FIG. 2 PROPYLENE GLYCOL CONTENT OF GERMAN BRANDS (1987/88)



2021607434

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : PESTICIDES

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Amati-D. (DAA)

KEYWORDS : culture, moon, saturn, methoprene, tla, statistics, maleic-hydrazide, mh-30, dithiocarbamate

---

OBJECTIVES

To provide an analytical service for the analysis of pesticides in tobacco and cigarette filler.

To develop analytical methods for new pesticides and to improve existing methods.

RESULTS

Project CULTURE

Pesticide routine analysis

The new pesticides EDB, DBCP, nitrofen, permethrin and formothion were included in the routine analysis mid August [1]. Trials to increase sample throughput in pesticide routine analytical work were performed.

Methoprene

The method for methoprene in tobacco [2] was revised to obtain a detection limit of 0.5 ppm instead of 10 ppm. The description of the method is in preparation.

Tobacco and tobacco dust samples from trials with Kabat and Dianex respectively, were analysed for methoprene. Residues between 1.4 and 78.2 ppm were found [3][4][5].

Pesticide residue analysis

A computer program was established to collect all analytical results of the pesticide residue analyses and to be able to perform statistics.

2021607435

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Offer samples

At the request of Leaf Department EEC, 12 offer samples were analysed for pesticide residues. The concentrations of all pesticides analysed were below the levels set by the German regulation. Three additional tobacco samples from Guatemala were analysed specifically for endrin. No residues were found.

Maleic hydrazide

Five TLA samples ex PMH and 2 cut filler samples ex PMG from special trials were analysed for MH-30. All PMH-TLA samples contained MH-30 residues above the recommended 80 ppm level (Table 1), the cut filler samples ex PMG 45.7 ppm and 63.9 ppm, respectively [6,7].

Project SATURN

As an anlytical service for PM-Australia, 23 Bright samples crop 1988 were analysed for organochlorine, organophosphorous, dithiocarbamate (DTC), ridomil and maleic hydrazide (MH-30) residues [8]. Maleic hydrazide and dithiocarbamate residues were found in various amounts in nearly all samples. Residue amounts exceeding the German tolerances are listed in Table 2.

Project MOON

PMG-TLS samples and PMG-brands

As an anlytical service for PMG, 63 TLA samples and 9 PMG-brands were analysed for pesticide residues [9,10,11].
In 22 TLA samples the MH-30 values exceeded the maximum recommended level of 80 ppm (Table 3).
In the PMG-brands no pesticide residues above the German tolerances were found. MH-30 residues in specific brands are showing, however, an increasing tendency.

MH-30 survey of DB-brands, June 88

Compared to the last survey of Dec. 87, an increase in the MH-30 residues in 7 of the 12 tested brands, including the MLK-DB, was observed (Fig. 1) [12]. This trend is confirmed by the results of the monthly and quarterly check for MH-30 of the MLK-DB.

2021607436

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

[1] Pestlin-S., Amati-D., Quarterly Report, April-June 1988, p. 14.
[2] Amati-D., Quarterly Report, July-September 1987, p. 12.
[3] Memo from Amati-D. to Freymond-J.M., July 19, 1988.
[4] Memo from Amati-D. to Freymond-J.M., July 26, 1988.
[5] Memo from Amati-D. to Freymond-J.M., August 18, 1988.
[6] Memo from Speck-M. to Babey-J., September 2, 1988.
[7] Memo from Speck-M. to Babey-J., October 3, 1988.
[8] Memo from Speck-M. to Wajntraub-J., August 12, 1988.
[9] Memo from Speck-M. to Probst-K., July 14, 1988.
[10] Memo from Speck-M. to Probst-K., August 12, 1988.
[11] Memo from Amati-D. to Speck-M., August 22, 1988.
[12] Memo from Speck-M. to Fink-W., August 9, 1988.

2021607437

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Table 1 : MH-30 residues in PMH-TLA samples

LOT	ORIGIN	MH-30 (ppm)
3711	US	90.0
3662	US	99.3
3653	US	86.8
6032	US	223.6
6073	US	83.7

Table 2 : MH-30 and DTC residues in PM-Australia samples

SAMPLE	MH-30 (ppm)	DTC (ppm)
S. Torrisi, lugs		61.0
E. Bortolussi, leaf	104.7	
E. Bortolussi, tips		54.2
T. Infanti, tips	101.9	
G.G. Tatti, tips	105.6	
R. Latif, tips	91.4	

2021607438

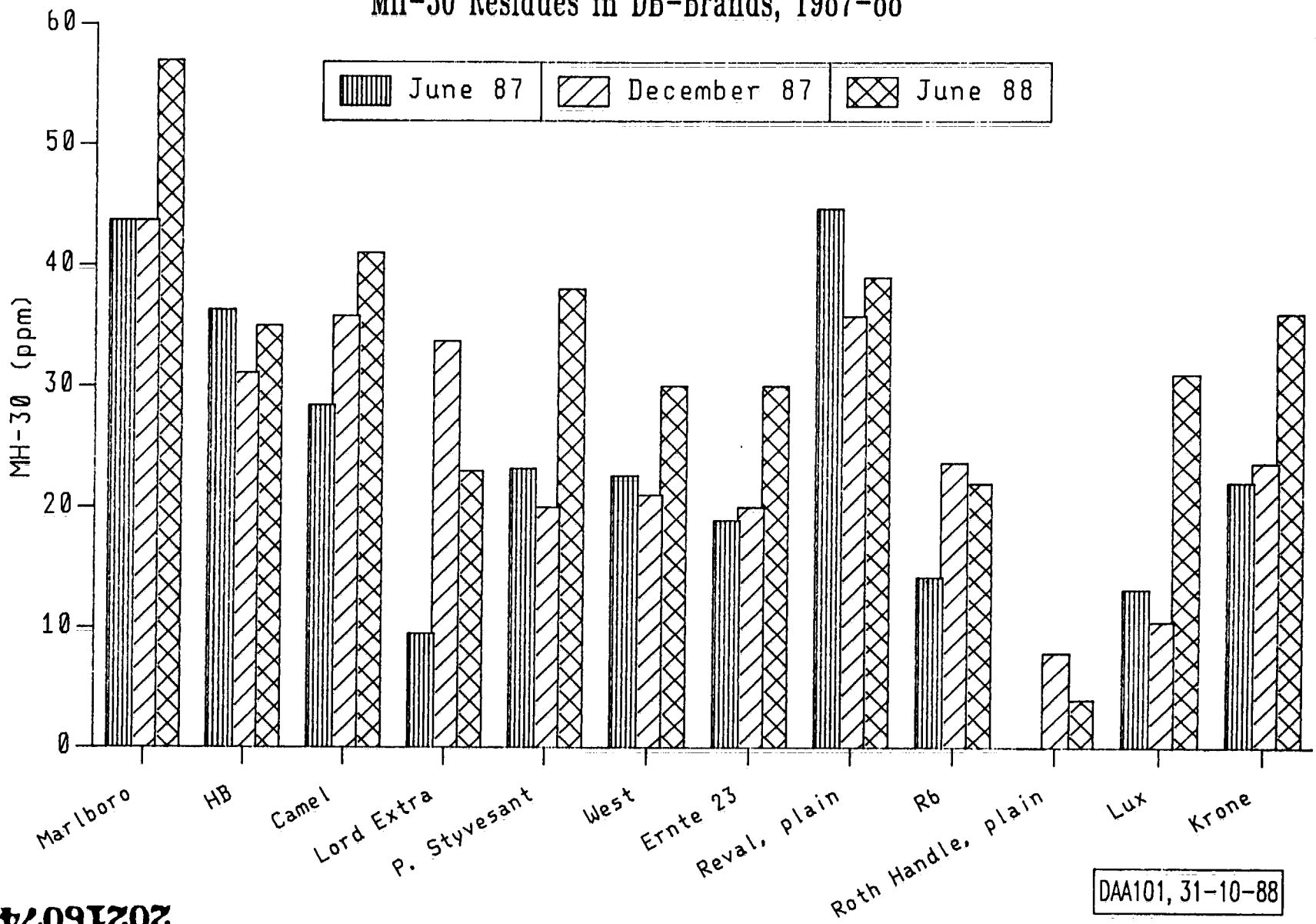
Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Table 3 : MH-30 residues in PMG-TLA samples exceeding the German tolerance level

LOT	ORIGIN	MH-30 (ppm)
3629	US	92.5
3630	US	89.1
1918	US	298.6
1927	US	320.1
1826	US	212.3
1921	US	197.5
1951	US	82.3
1984	US	197.0
6031	US	183.3
6086	US	81.5
6087	US	88.5
6093	US	325.8
6097	US	190.7
6295	US	85.7
1822	US	319.0
1827	US	174.3
1909	US	215.1
1926	US	187.9
1965	US	90.2
1978	US	287.2
1979	US	195.8
6093	US	259.4

2021607439

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000



2021607440

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : DEIMOS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Bindler-G.N. (GNB)

KEYWORDS : ss, nicotine, tpm, co, single-cigarette

OBJECTIVE

Develop and evaluate the methodology for single cigarette routine determination of sidestream smoke TPM, nicotine and CO yields.

STATUS

Equipment

A four-port Borgwald smoking machine was ordered as a base of the future SS smoking set-up.

CORESTA Task-Force Studies

In the CORESTA ETS/SS task force meeting of June 16th in London [1] it was decided to do additional research on the method as proposed by BAT before a co-operative study is initiated. Among the points to be clarified, it was decided that the effect of flow rate on MS and SS yields would be investigated by our laboratory.

In the course of this study, different types of smoking chambers were tested in order to find out the influence of the chamber design on MS and SS tar, nicotine and CO yields.
The following chambers were used :
- PME chamber : an enclosed chamber
- BAT chamber : a bottomless chamber obtained from BAT
- BAT chamber with a deflector underneath the cigarette
- a chamber obtained from an external laboratory, identical to BAT except that it is wider.

The air-flow through the chambers was varied between 1 and 5 standard liters per minute (slpm).

The following comments can be made on the basis of the preliminary results obtained :

2021607441

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Mainstream smoke

MS nicotine increases with increasing flow when open chambers are used. When using an enclosed chamber, the nicotine yield decreases with increasing air velocity.

MS CO and tar decrease with increasing air flow in nearly all chambers; only with the BAT chamber the CO remains constant.

Sidestream smoke

SS CO and tar yields decrease with increasing flow-rates in all chambers. Nicotine yields are only slightly affected.

Static burning rate

In all chambers, the burn rate of the smouldering cigarette increases rapidly with increased flow rate through the chamber until the rate of the freely smouldering cigarette is achieved. It then continues to increase, but much more slowly.

It should be noted, however, that this phenomenon is actually a function of the air velocity around the cigarette, and thus the free smouldering rate is achieved at a very low flow rate for the BAT chamber, but at a higher (1.5 slpm) flow rate for the chamber obtained from the external institute or the BAT chamber with deflector.

Conclusion

It appears that a fast removal of SS from the chamber, i.e. a flow rate of about 3-4 slpm for the BAT chamber, is needed to obtain the true MS values. It is shown, however, that this often implies that the air velocity around the cigarette will become excessive, falsifying the whole process. Thus, an alteration of the chamber configuration is needed, such as the use of a deflector, to obviate this problem. A screen above the cigarette could also be used to the same end, but it was found, in a separate experiment, to result in an excessive deposition and pyrolysis of tar on this screen.

PLANS

Study the influence of cigarette filter ventilation on MS and SS yields with respect to the influence of flow-rate through the chamber.

Study the influence of flow rate through SS collection chambers on MS and SS aldehyde yields.

2021607442

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCE

[1] CORESTA SS and ETS Task Force Summary on main points from meeting on 16th June, 1988. Written by R.R. Baker (BAT, UK).

2021607443

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : RHEA

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Pestlin-S. (SAP)

KEYWORDS : particulate-matter, teom, tsi-5000, ras-1, gravimetric-measurement, temperature, relative-humidity

---

OBJECTIVE

To compare the response of different instrumentation used in the determination of sidestream smoke particulate matter
a) considering the absolute values
b) considering the pattern obtained during aging of smoke.

RESULTS

TEOM, TSI 5000 and RAS-1 instrumentation and the gravimetric measurement (filter : Fluoropore, 1 um pore size) were compared. Various amounts of MLZ01 and C20 cigarettes (1,3,5 and 7) were smoked in an experimental room and the room temperature and relative humidity were varied between 22°C-35°C and 30-80%, respectively.

Absolute values of particulate matter

It was found that the absolute values for the instrumentation compared were not equal. The TEOM gave the highest values followed by gravimetric measurement and the TSI 5000. The TEOM and the RAS-1 showed a linear dependency of particulate matter upon the number of cigarettes smoked, while the values obtained by the gravimetric measurement did not.
The TSI 5000 also showed a dependency upon the number of cigarettes smoked, but the values obtained deviated too much to consider the dependency as linear or exponential.
When increasing the relative humidity, the chamber temperature dropped slightly from 24°C to 22°C. These conditions only affected the TEOM values, which increased by 30%.
While increasing the chamber temperature from 22°C to 35°C, the relative humidity in the room decreased to 30%. By this, only the RAS-1 values were influenced. They decreased by 30%.

2021607444

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Pattern obtained for aging SS smoke

The TEOM, gravimetric measurement and TSI 5000 gave an exponentially decreasing pattern for particulate matter over time. The RAS-1, however, showed an increasing curve when smoking 7 cigarettes, an almost straight line for 5 cigarettes and finally a decrease over time for 3 or less cigarettes.

Cigarette brands

Independent of MLZ01 and C20 the pattern for particulate matter obtained with each instrument was the same. The absolute values, however, varied.

PLANS

This project will be continued by using different filter materials for the TEOM and the gravimetric measurement.

S. Perdi

2021607445

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : HYDRA, ETS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Gerber-C. (CAG)

KEYWORDS : ets, rsp, nicotine, solanesol, sfc, tno

PROJECT HYDRA

Objective

Obtain an analytical data-base on ETS through indoor air monitoring experiments. Test the analytical methods through work with other laboratories.

Status

- SFC instrumentation

A Carlo Erba SFC 3000 supercritical fluid chromatograph was received (on lease) early in September. The instrument is now operational. Pending delivery of a suitable column for solanesol analysis, and as a support to QA, a method is being developed for polyethylene glycol.

- Carbon monoxide detectors

A Horiba APMA 350E NDIR analyzer for carbon monoxide monitoring was received in place of the Dasibi 3008 which was sent to us pending delivery of the final instrumentation and was found unstable. The sensors were changed on both PASS units and their response is being regularly monitored.

- Solanesol analysis

The existing method for solanesol analysis in RSP condensate was modified on the basis of the publication by Odgen et al. [1]. The GC conditions and the extraction solvent were changed. Under these conditions, analysis of standards gave good results. However, an interference with the internal standard suggested in this paper was observed for filter extracts.

2021607446

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT ETS

Objective

Support S&T in the organization of sub-contracted studies on ETS.

Status

Work started, in collaboration with S&T, on a project of ETS real-life monitoring to be sub-contracted to an external laboratory in Belgium.

Additional experiments were performed in Holland in the TNO facility in order to test their analytical methodology and equipment (nicotine, RSP and carbon monoxide monitoring using portable samplers). The instrumentation developed by TNO was found suitable for the monitoring of ETS in air-liners, and recommendations were made to change some points in their analytical techniques and laboratory practices [2].

SUPPORT TO OTHER GROUPS

Upon request of Quality Assurance, we made some analyses of the air inside the smoking laboratory. Nicotine, RSP (using the TSI 5500 and by filter gravimetry), ammonia, carbon and nitrogen monoxides and nitrogen dioxide were monitored at different locations over a 3-day period [3].

Two smoking sessions were performed in an office of the R&D building at a high ETS level (50 ppm CO) in order to monitor the non-volatile nitrosamine concentration as a function of time. Results were handed over to the SS-study group as a support to project TASSO.

PLANS

- Support will be given to S&T for field samplings and for co-operation with external laboratories upon their request.
- Solanesol analysis technique will be applied to all collected samples.
- A method will be established for the determination of trace amounts of volatile organic compounds, especially benzene and ethylene, in indoor air.
- New analytical methods using supercritical fluid chromatography will be designed and assessed (PEG, solanesol and pesticides).

2021607447

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

[1] Odgen-M.W. and Maiolo-K.C., J. HRC & CC, 11 (1988), 341-343.
[2] Memo from Piadé-J.J. to Reif-H., Comparison of TNO sampling case to RJR PASS, August 10, 1988.
[3] Memo from Gerber-C. to Senehi-F., Analyses d'air au laboratoire de fumage, September 30, 1988.

2021607448

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : NEAR INFRARED REFLECTANCE ANALYSES (NIRA)

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Moser-F. (FMO)

KEYWORDS : infraAlyzer, nira, flavor

OBJECTIVE

To evaluate Near Infrared Reflectance Analyses (NIRA) as an anlytical approach towards routine quality and/or process control measurements.

STATUS

An infraAlyzer method for the determination of main components in flavors MF-AC-Base and MFSB-1 liquid is being developed. Calibrations for ethanol, water, fructose and glucose in MF-AC flavor, and ethanol, water and propylene glycol in MFSB flavor were established. For each type of flavor, specific calibrations have to be made, e.g. the calibration for ethanol in MF-AC cannot be used to determine ethanol in MFSB. Whether the total composition of a flavor and not only the main components or in the case of MFSB propylene glycol is the reason for this effect is not yet known.

To check the reproducibility of the infraAlyzer measurement with the liquid cell the 4 components in a MF-AC sample were determined twelve times. The resulting CV-values (%) are : Ethanol 1.27, water 0.38, fructose 1.13 and glucose 0.97.

In order to check the validity of the calibrations, 10 MF-AC and 6 MFSB samples were measured and the infraAlyzer values of the various components compared with the lab values from PM-Richmond and/or QA-PME. All infraAlyzer values were found to be in good agreement with the lab values.

2021607449

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PLANS

Since the number of samples for the calibrations was relatively small, the check of validity will continue.

2021607450

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : ORDER

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Murray-M. (MUM), Moser-E. (EVM)

KEYWORDS : regulation, db, flavor, preservative, analysis, compliance

---

OBJECTIVE
==========

To ensure that PM produced materials and products comply with the requirements of the German Food Law.

STATUS
======

Twelve flavor samples, 3 reconstituted tobaccos and 2 Cochise samples were analysed in the 5th sample series of project ORDER. Results were reported to QC-Munich.

2021607451

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : ORION

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Pestlin-S. (SAP)

KEYWORDS : sidestream-smoke, ss, low-static-burning-rate, self-extinguishing, density

---

OBJECTIVE

To investigate the influence of filler density and cigarette paper on SS yield and composition.

RESULTS

Ten prototypes [1] having the same construction and physical properties as prototypes of the Orion I series [2], 75C1, 083P, 085P, 087P and 089P [3], but with self-extinguishing and low static burning rate papers, respectively, were analysed for their SS yield and composition.

Compared with the results obtained for ORION I [2], the values obtained for the analysed prototypes do not follow the same pattern, i.e. having a maximum at a density of 225 mg/ml and a minimum at 275 mg/ml, but show a random pattern as the visibility and particulate matter data did [1].
Comparing the cigarette papers it was shown that the prototypes with WP60 paper gave by far the highest values for all parameters determined. The values of the self-extinguishing and low static burning rate paper were the same, within experimental error.
While the density does not seem to play such an important role in sidestream smoke reduction, when using self-extinguishing or low static burning rate papers, the cigarette paper itself does.
Using either one of those two papers the chemical sidestream smoke parameters, e.g. CO, NO, nicotine, NH3, and HCN, were reduced by at least 50%, visibility and TPM by 30%, compared to those obtained when using WP60.

2021607452

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PLANS

In order to confirm the results obtained, all 15 ORION prototypes will be analysed again.

REFERENCES

[1] Pestlin-S., Quarterly Report ORION, April-June 1988, pp. 27-28.
[2] Pestlin-S., Quarterly Report ORION, October-December 1988, pp. 46-51.
[3] Pestlin-S., Quarterly Report ORION, July-September 1987, pp. 32-33.

S. Pestlin

2021607453

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : PACK

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lauper-G. (GLA)

KEYWORDS : pack, label, cardboard, profile, ink, solvent, volatile, flavor, odor, organoleptic, sniffing, packaging, headspace, quality

---

OBJECTIVE

To determine which substances in packaging materials adversely influence cigarette taste, and establish maximum acceptance levels.

RESULTS

Validation

To confirm the tolerances proposed for residual solvents, 40 MLF HL blanks were analysed by the PM headspace GC method. The samples were taken from all PME MLF production centers. Fig. 1 shows the average total solvent and 1-ethoxy-2-propanol concentrations. Total solvent and 1-ethoxy-2-propanol concentrations are shown as a percentage of the tolerance level established by sensory analysis [1]. The total residual solvent concentrations found are lower than the tolerance level. However, 1-ethoxy-2-propanol concentrations were closer to the tolerance level. Some individual samples printed by Polylaupen exceeded the tolerance level.

Sensory evaluation

A descriptive sensory evaluation was made to correlate organoleptic changes with different residual solvent levels. The same packs were used as for the overall difference test [1]. Fig. 2 shows that increased solvent concentrations introduce the negative taste factors acidity, mouthcoating and harshness. The positive taste factors, impact taste and aroma, decrease at higher solvent concentrations.

2021607454

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PLANS

- Repeat the collective test with printed blanks.
- Establish specifications for printers including individual and total solvent tolerances.

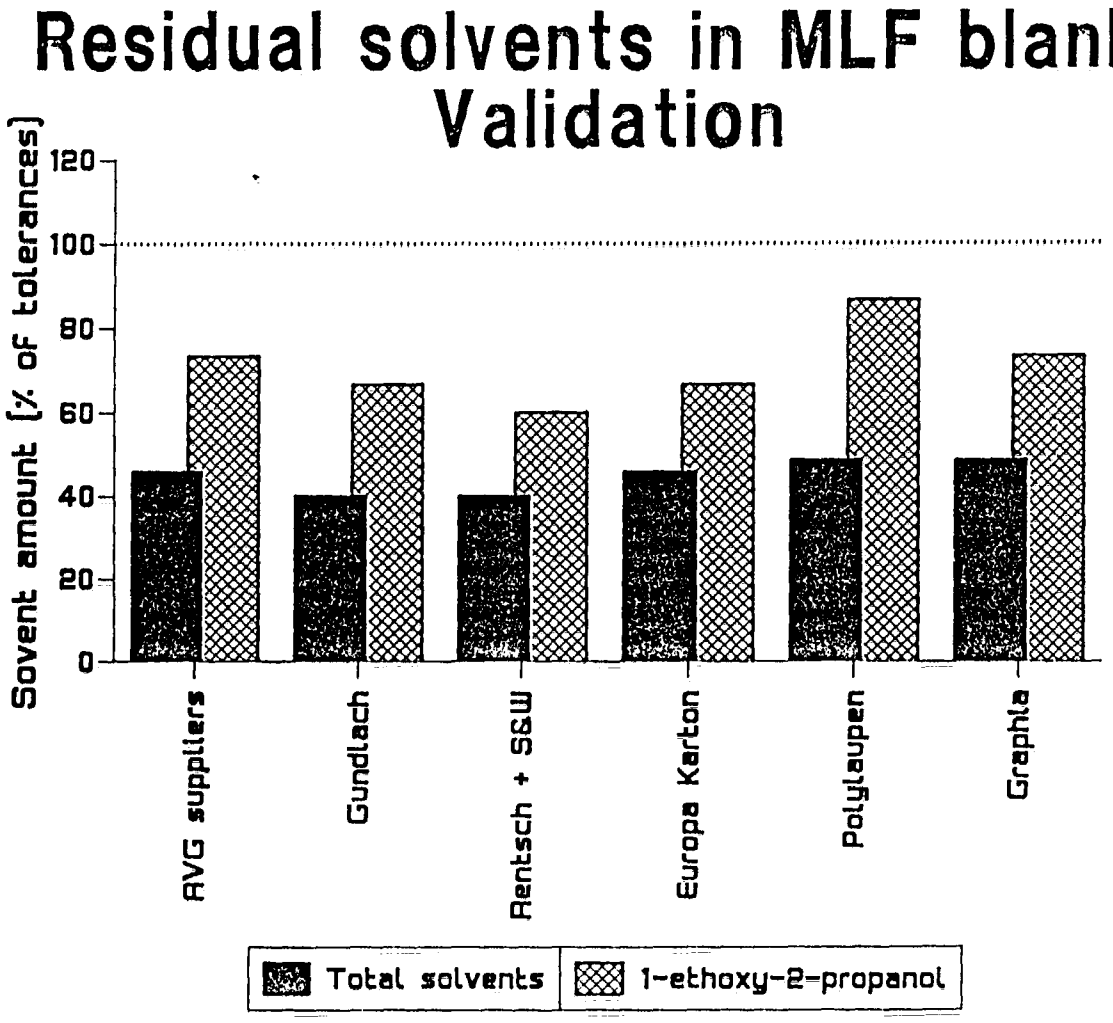
REFERENCE

[1] Lauper-G., Quarterly Report PACK, January-March 1988.

2021607455

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Figure 1

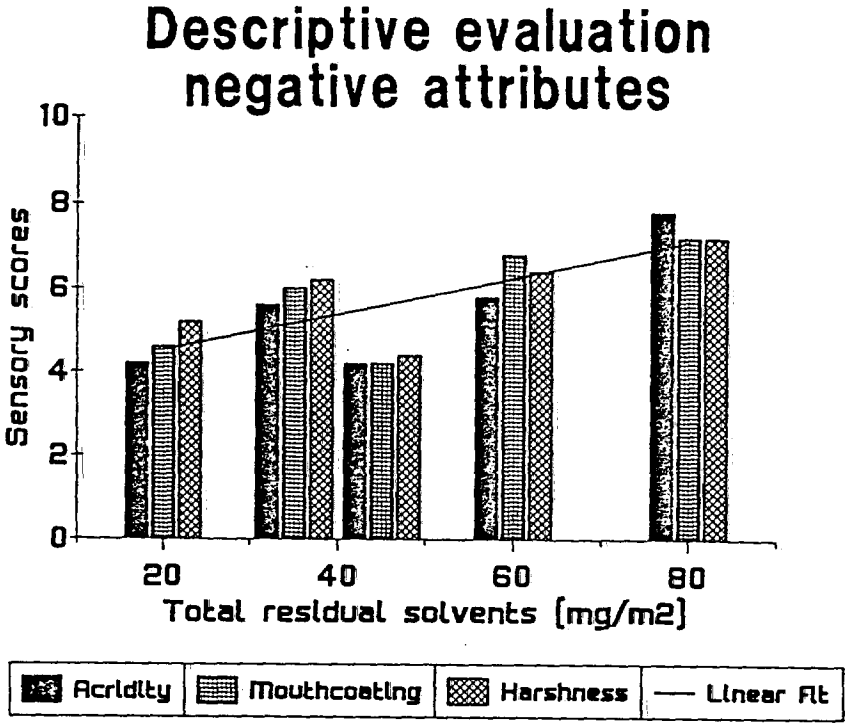


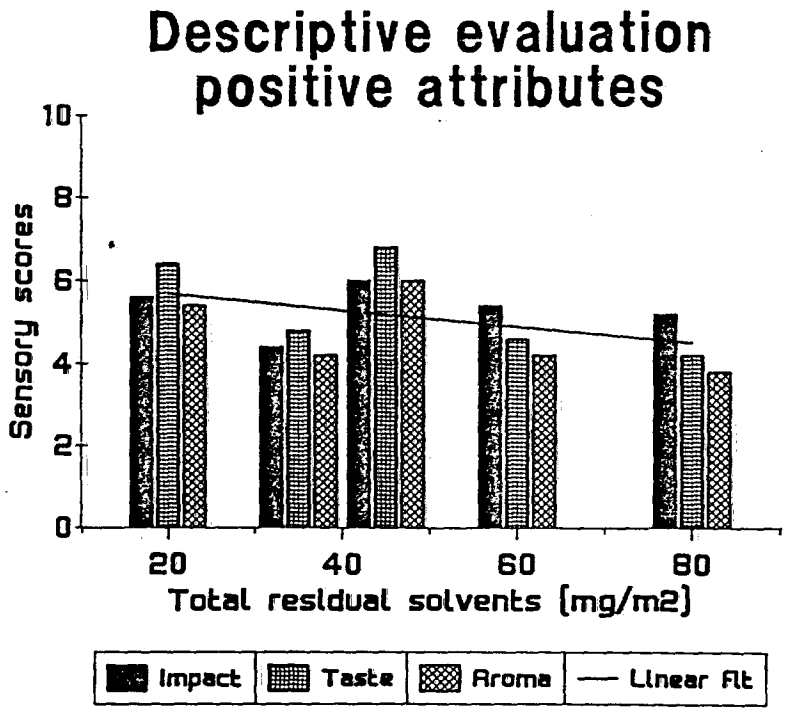
RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607456

Figure 2





2021607457

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : RESEARCH

SUBJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Murray-M. (MUM), Genoud-Y. (YVG), Lauper-G. (GLA), Moor-Ph. (PHM), Renaud-J.M. (JMR)

KEYWORDS : label, profile, board, carton, tip, deposit, solvent, coating, off-taste, gravure, offset, aeration, migration, volatile, taste, packaging, nicotine, reduction, gb, nl, ch, db, ma, dd, au, dz, sr

---

PACKAGING ANALYSIS

Raffles trials in Malta with an offset-printed display carton produced severe distorsion of the pack wrapping film. The cigarettes had a chemical off-taste. Analysis of the cigarette filters and the display carton demonstrated migration of printing volatiles from the display carton to the filters. Replacement of the polypropylene wrapping film by cellophane only delayed the onset of swelling. The use of a disperse varnish or helio printing was recommended (PHM/GLA) [1,2,3,4].

MLF HL blanks produced by Interdruck for Dresden were returned because a black dust covered the pallets. No difference was detected by closed loop stripping analysis (CLSA) between center pallet samples and previous samples from the same supplier (PHM/GLA) [5,6].

A deposit was found on a packing machine in Bergen-op-Zoom. Analysis of the deposit and of the labels used on the machine showed the deposit was a highly cristalline polyethylene. Abrasion of a machine part was suggested as the cause of the problem (PHM) [7,8].

Two Magnoprint paper samples were submitted for analysis. CLSA showed the presence of styrene and phenylcyclohexene. The samples were rejected and the supplier informed about the cause (GLA/PHM) [9,10,11].

Tests were carried out at Rentsch to determine if special aeration cutouts were still necessary in the cardboard sheets which separate each pallet layer of HL blanks. Analysis showed no difference between HL blanks palleted with plain and with cutout separation sheets. Approval of the plain sheets was recommended (GLA) [12,13].

2021607458

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Raffles UK display cartons and cigarettes were analysed. Results confirmed the Malta tests. Volatile migration from the offset display carton to the cigarettes was again demonstrated (GLA) [14].

An unprinted display carton Kopparwhite ex Algeria was analysed and compared with previous deliveries. The carton showed some differences with the Iggesund standard. Panel evaluation was recommended prior to approval (GLA/PHM) [15,16].

CAMEL TASTE

The smoking panel found a subjective improvement in taste in Camel DB. No chemical differences were detected by CLSA and GC-MS (GLA/PHM) [17,18].

PACKING CONTAINERS

Containers proposed for bale packing were analysed. The containers were made of polypropylene which is not allowed for tobacco contact by PM-US. Rejection was recommended (PHM) [19,20].

MICHELMAN COATED PAPER

Growers in Zimbabwe want to use an acrylic coated paper instead of the traditional tar paper for bale wrapping. As this coating is used by PM-US on cardboard export cases for BBS, approval was recommended (MUM) [21,22].

BOILER DEPOSIT

Analysis of a hard black material found in the heaters at Onnens showed it was a bitumen type combustion residue. Metal corrosion was excluded as the cause (MUM) [23,24].

NICONET

A rod-like device (Niconet T88) filled with a solid absorbent, claimed to reduce the nicotine content of cigarettes when placed

2021607459

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

in the packet, was received. Analysis showed the absorbent to be a silicate mineral. No nicotine reducing activity was detected (MUM) [25,26].

PUFF BY PUFF SMOKING

At the request of Product Development a group was established to perform "puff by puff" smoke analyses. The tasks of this group are :

- To establish and/or improve procedures for "puff by puff" DPM, CO and SN determinations;
- To provide fast response to Product Development requests.

Ten samples for projects AMOUR, VOLGA and PPPP were analysed for DPM with 3 different puff volumes (35, 50 and 70 ml) [27]. The methods for CO and SN are tested. Development is under way to improve the DPM and SN methods to get consistent values with "puff by puff" and ISO smoking (JMR).

CF ANALYSES

At the request of PM-EEC, 9 Camel samples from the EEC region as well as 2 samples from Switzerland were analysed for CF. CF was found only in Camel 79/F and 84/F from Switzerland as expected from the Swiss market survey (JMR) [28].

At the request of QA, Winston 84/F (Algeria) and Casablanca (Switzerland) were analysed for CF. No CF was detected in any brand (JMR) [29][30].

In the context of the Swiss Camel survey, Camel 84/F was analysed for CF : 29 ppm of CF were detected (JMR) [31].

REFERENCES

[1] Memo from Lutzig-B. to Murray-M., June 22, 1988.
[2] Memo from Murray-M. to Moeller-N., July 7, 1988.
[3] Note to file from Moeller-N., July 12, 1988.
[4] Memo from Lauper-G. to Moeller-N., July 7, 1988.
[5] Memo from Michaca-M. to Kursteiner-C., June 24, 1988.
[6] Memo from Lauper-G. to Michaca-M., July 14, 1988.
[7] Memo from Gabler-E. to Murray-M., July 8, 1988.
[8] Memo from Moor-Ph. to Gabler-E., August 2, 1988.
[9] Memo from Michaca-M. to Lauper-G., June 30, 1988.
[10] Memo from Lauper-G. to Michaca-M., July 28, 1988.
[11] Memo from Michaca-M. to Lauper-G., July 28, 1988.
[12] Memo from Lutzig-B. to Lauper-G., April 27, 1988.

2021607460

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

[13] Memo from Lauper-G. to Lutzig-B., August 17, 1988.
[14] Memo from Lauper-G. to Moeller-N., August 5, 1988.
[15] Memo from Michaca-M. to Lauper-G., August 19, 1988.
[16] Memo from Lauper-G. to Michaca-M., August 29, 1988.
[17] Memo from Fernandez-L. to Murray-M., June 17, 1988.
[18] Memo from Murray-M. to Fernandez-L., July 12, 1988.
[19] Memo from Saalfeldt-H. to Murray-M., August 17, 1988.
[20] Memo from Murray-M. to Saalfeldt-H., August 24, 1988.
[21] Memo from Saalfeldt-H. to Speck-M., August 9, 1988.
[22] Memo from Murray-M. to Saalfeldt-H., August 24, 1988.
[23] Memo from Murray-M. to Turpin-D., September 9, 1988.
[24] Memo from Turpin-D. to Boichat-F., September 9, 1988.
[25] Memo from Murray-M. to Fink-W., September 9, 1988.
[26] Memo from Völkl-G. to Fink-W., September 2, 1988
[27] Memo from Renaud-J.M. to Abdelgawad-A., August 15, 1988.
[28] Memo from Renaud-J.M. to Fernandez-L. September 1, 1988.
[29] Memo from Renaud-J.M. to Senehi-F., July 28, 1988.
[30] Memo from Renaud-J.M. to Senehi-F., September 1, 1988.
[31] Memo from Renaud-J.M. to Lizzi-R., August 25, 1988.

2021607461

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607462

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : CAIMAN

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lüthi-N. (NIL)

KEYWORDS : caiman, waterstained, fc, tobacco, expansion, et, ks, br, zw

---

OBJECTIVES
==========

This study was initiated in order to determine if waterstained tobaccos expand as well as standard tobaccos.

STATUS
======

For this study, flue-cured tobaccos from Korea, Brazil and Zimbabwe, under the supervision of PM tobacco experts, were deliberately waterstained prior to redrying in their respective countries (1, 2, 3). The tobaccos were then shipped from each country to the FTR warehouses in Onnens, together with some "normally treated" tobacco as a reference (4).

The first expansion runs took place in September 1988 in Onnens with the trial and reference tobaccos from Korea and Brazil. The tobacco from Zimbabwe should arrive in Onnens during October.

Four laydowns of 1'000 kg each of 100% flue-cured tobacco were processed in the FTR primary on September 27 and expanded the next day in Onnens.

No problems were encountered during the processing and expansion which was carried out according to specifications for an ET-FCF (ET 011).

Analytical follow-up is under way.

2021607463

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

(1)	Hunt-G.	Profs note to Friedrich-H., "Expansion trial on Korean flue-cured", March 3, 1988
(2)	Kiraly-A.	Profs note to Friedrich-H., "Expansion trial on Brazilian flue-cured", April 7, 1988
(3)	Saalfeldt-H.	Profs note to Friedrich-H., "Waterstained tobaccos ex Zimbabwe", August 5, 1988
(4)	Babey-J.	Profs note to Schmid-H., "Project Caiman", September 8, 1988

NIL/cav/October 20, 1988
qr388caimnil

2021607464

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : COURBET

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Wood-C. (CWO)

KEYWORDS : primary, proposal, upgrade

OBJECTIVES

PM-EEMA, Area Operations assistance and co-ordination of primary upgrade proposals and recommendations.

Give technical support in developing specific process recommendations for new primary installations or upgrading existing facilities.

STATUS

A joint visit was made during week 50 to Amer Tupakka, Finland, by Area Operations EEMA and Process Development, to review current primary upgrade plans and discuss future equipment options. A report was issued in January 1988 from Process Development to EEMA Area Management for review of specific process proposals.

During week 25, 1988, tobacco "pad" samples were received from ATO, blended strips for humectant analysis, to determine if elevated humectant contents are a factor in BBS padding.

During week 51, 1987, a meeting was also held in Neuchâtel between R&D and EEMA Area Management to review primary improvement proposals for the El Khaoub, Algeria, factory.

During week 4, 1988, a joint meeting was conducted in Sarajevo, Yugoslavia, with Fabrica Duvana Sarajevo (FDS), EEMA Management and Process Development R&D, for the purpose of formulating a primary improvement plan for the FDS factory. This protocol was issued in February and approved by PM EEMA and FDS (1).

A follow-up visit is planned for week 42, 1988, to Sarajevo to assist in the start-up of the new or renovated primary equipment. The visit will be made with PM-EEMA Area Operations, a TTG Richmond engineer and a person from Process Development Neuchâtel (2).

2021607465

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES
==========

(1) Betson-D., FDS Protocol, January 27, 1988

(2) Betson-D., Yugoslavia Burley Dryer Rebuild in Sarajevo, June 24, 1988

CWO/cav/October 11, 1988
qr388courcwo

Cliff Wood

2021607466

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : DALI

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Borgognon-D. (DIB)

KEYWORDS : dali, rcb/ch, rcb/us, nc, rl-tc, rl-150b, rl-g, rl-bg, rcb-g

---

OBJECTIVES

Initiated as a follow-up to the Blend Component Study, the aim of this project is to establish the correlation between cigarette firmness and OV, CV and OV, in 100% Recon cigarettes, in order to ascertain the specific correction factor for firmness and CV as a function of OV.

STATUS

All the cigarette prototypes were made and cigarettes were selected according to the procedure defined in the 4th Quarterly Report 1986 (1).

The forty-two batches of weight selected cigarettes were conditioned at 20°C/50% RH and 20°C/70% RH. They were then tested for firmness, tobacco weight and OV. The cut filler, after being similarly conditioned, was tested for Borgwaldt CV and OV.

The remaining cigarettes and tobacco are being conditioned at 20°C/55% RH and 20°C/65% RH before being tested. These two additional conditionings will give more accuracy to the regression curves.

REFERENCE

(1) Borgognon-D., Quarterly Report, October-December 1986, p. 68.

2021607467

DIB/cav/October 5, 1988
qr388dalidib

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : DEGAS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Borgognon-D. (DIB)

KEYWORDS : us, burley, fc, br

OBJECTIVES

The aim of this project is to evaluate the influence of strip package OV on US Burley strip size.

STATUS

All seven different lots of US Burley were processed in the Miniprimary, with one repeat treatment, i.e. a total of fourteen batches were processed.

Respective strip and cut filler testing was completed. The TLA cigarette maker in Onnens was equipped with a stronger vacuum pump and the Accuray weight control system was modified in order to work satisfactorily at the desired production speed. After completion of a general fixing of the machine, the remaining cigarette prototypes were produced in September. Their evaluation had to be postponed to October due to other priorities.

D. Borgognon

2021607468

DIB/cav/October 5, 1988
qr388degadib

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : MINIPRIMARY

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Borgognon-D. (DIB)

KEYWORDS : miniprimary, equipment, millet, heinen

EQUIPMENT (Project MILLET)

OBJECTIVES

The aim of this project is to increase the capacity of the Miniprimary and improve flexibility as well as the quality of the cut filler while maintaining the desired subjective characteristics.

STATUS

As mentioned in the last Quarterly Report (1), the new equipment was installed from May 24 to June 3, 1988. One of the advantages this equipment offers is the possibility of on-line reordering of Burley, which has two positive aspects :

- time saving (1 hour)
- less degradation on Burley strips and consequently on the final cut filler.

Four laydowns were conducted in the Miniprimary :

- 100% Burley part of the MLK, batch No. 1428 (Burley treatment with reordering on a separate cycle: control)

- 100% Burley part of the MLK, batch No. 1429 (Burley treatment with on-line reordering)

- MLK batch No. 1432 (Burley treatment with reordering on a separate cycle: control)

- MLK batch No. 1433 (Burley treatment with on-line reordering)

Samples of strips and cut filler were taken from both batches 1428 and 1429 in order to be sieved on the Cardwell strip shaker and on the PM cut rag shaker respectively. The results are reported in Appendix 1.

2021607469

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Appendix 2 shows the quality parameter data of the two MLK batches 1432 and 1433 as well as some relevant parameters of the MLK cigarettes produced from these batches. Prototype 003p was produced with FTR MLK cut filler (control cigarette).

COMMENTS

Appendix 1

- The SSI of the Burley after top flavor application has improved from 66.3% to 75.7% with on-line reordering. When compared with the TPO results of the FTR Burley, the SSI of Miniprimary Burley exit top flavor application is similar to that of FTR at the exit of the Burley top cylinder.

- The on-line reordering also has a positive impact on the cut Burley tobacco, as a larger strip size leads to a larger cut filler size.

Appendix 2

- The results show that the improvement of the Burley strip size also influence positively the cut filler size of the finished Miniprimary MLK cut filler. The SSI of the cut filler before and after maker has improved by one point.

- The cigarette results do not show relevant trends except for the firmness, which is close for the two Miniprimary cigarettes but 0.2 mm better than that produced with FTR MLK cut filler.

TASTE EVALUATION

On August 24, 1988, the three prototypes were evaluated by Panel A in Lausanne (2). The panelists found that both Miniprimary cigarettes, trial as well as control, gave good Marlboro characteristics.

Compared to the reference produced with FTR cut filler, trial 001p was fully in line with standard quality and thus acceptable.

PLANS

As the prototype was accepted, the on-line reordering of Burley was implemented in the Miniprimary.

2021607470

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

OPERATIONS

The following batches were processed through the Miniprimary during the reporting period (64 working days) :

	64 working days (July-Sept. 1988)
For Product Development :	31
For Process Development :	4
For Quality Assurance :	8
For Research :	27
	70

The number of batches including Burley treatment increased to 58.6% during this quarter from 42.3% during the first 6 months of 1988.

REFERENCES

(1) Borgognon-D., Quarterly Report, April-June 1988, p. 44

(2) De Borst-E., Taste Evaluation, August 24, 1988

D. Borg

DIB/cav/July 7, 1988
qr288minidib

2021607471

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

APPENDIX 1

Burley cased tobacco (Burley part of the MLK)

Miniprimary Batch No.		1428 (MP control)		1429 (MP trial)		TPO Results (FTR)	
Strip Size		(1)	(2)	(1)	(2)	(1)	(2)
After Burley Top							
OV	%	14.9	1.0	18.7	2.4	20.0	1.8
1/1 inch	%	18.7	5.5	33.3	3.4	39.5	
1/2 inch	%	40.5	0.9	40.8	1.9	21.3	
1/4 inch	%	30.4	3.9	21.9	1.4	29.8	
1/8 inch	%	8.1	1.7	3.4	0.3	7.6	
Pan	%	2.3	0.5	0.6	0.1	1.8	
SSI	%	66.3	3.6	75.7	1.4	72.2	
Sieve OV	%	14.8	0.5	17.5	0.8	19.0	
Cut Filler Size							
OV	%	12.4	0.3	14.4	0.8		
6 mesh	%	17.6	1.6	32.2	4.0		
12 mesh	%	35.8	0.3	33.3	1.2		
20 mesh	%	40.2	1.8	30.2	2.8		
35 mesh	%	6.0	0.4	3.9	0.3		
Pan	%	0.4	0.1	0.4	0.1		
SSI	%	66.0	0.9	73.3	1.8		
Sieve OV	%	12.9	0.1	12.7	0.0		
CV as is	ml/g	5.0	0.1	5.3	0.1		
CV OV	%	12.9	0.1	13.1	0.1		
CCV	ml/g	5.2	0.1	5.5	0.1		

(1) mean value, (2) std deviation

DIB/cav/10.10.88
qr388minidib

2021607472

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

APPENDIX 2

Miniprimary Batch No.		1432 (MP control)		1433 (MP trial)		FTR Control	
Cigarette prototype		002p		001p		003p	
Cut Filler Size		(1)	(2)	(1)	(2)	(1)	(2)
Before maker :							
OV	%	13.5	0.3	13.5	0.3		
6 mesh	%	23.3	5.0	24.9	4.2		
12 mesh	%	32.8	1.3	32.5	1.1		
20 mesh	%	37.1	3.2	36.9	2.5		
35 mesh	%	6.3	0.8	5.2	0.7		
Pan	%	0.5	0.1	0.5	0.1		
SSI	%	68.0	2.4	69.0	2.0		
Sieve OV	%	13.0	0.2	13.2	0.1		
CV as is	ml/g	5.6	0.1	5.4	0.1		
CV OV	%	13.1	0.2	13.4	0.2		
CCV	ml/g	5.8	0.1	5.8	0.1		
After maker :							
6 mesh	%	6.8	0.7	7.7	0.4	2.5	0.4
12 mesh	%	33.4	1.0	35.3	0.3	25.8	2.1
20 mesh	%	50.0	1.1	48.8	0.5	55.4	0.5
35 mesh	%	9.3	0.4	7.7	0.4	14.2	1.4
Pan	%	0.5	0.1	0.5	0.1	2.1	0.5
SSI	%	59.2	0.7	60.5	0.4	53.1	1.3
Sieve OV	%	13.1	0.1	13.1	0.1	12.8	0.1
CV as is	ml/g	5.2	0.0	5.1	0.0	4.8	0.0
CV OV	%	13.1	0.1	13.3	0.0	12.9	0.0
CCV	ml/g	5.4	0.1	5.4	0.0	4.9	0.0
Cigarette							
Total weight	mg/cig	977		986		982	
Tob. weight at 12.5% OV	mg/cig	764		764		762	
Corr. firmness at 12.5% OV	mm	2.97		2.94		3.17	
Cigarette RTD	mm H_2O	103		105		107	
Dilution	%	14		14		15	
Filler							
Total alkaloids	%	1.91		1.91		1.91	
Red. sugars	%	7.3		7.8		7.8	
Nitrate-nitr.	%	0.21		0.22		0.21	
Smoke							
Tar	mg/cig	16.0		15.8		15.7	
SN	mg/cig	1.12		1.10		1.11	
CO	mg/cig	15.7		16.2		16.1	
NO	mg/cig	0.22		0.23		0.23	
Puff ct	n/cig	9.0		9.0		8.9	

(1) mean value, (2) std deviation

DIB/cav/10.10.88
qr388minidib

2021607473

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : PICASSO

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lüthi-N. (NIL)

KEYWORDS : picasso, tmci, recon, tobacco, sheet, rcb, monique, es, ch, trial, tarragona, asta, hosokawa, micropul, db, grinding

---

OBJECTIVES

The aim of this project is to create an in-house capability for TMCI, a reconstituted tobacco process using a different slurry system to that of RCB, as requested by TTG Richmond. The RCB/ Monique sheet line in Onnens appeared suitable for attaining this objective. The project was implemented and now allows for process and product development trials and production of sheet materials using TMCI technology with various binder systems for limited periods of time.

It also involves our assistance, together with PM Richmond, to Tabacalera SA in Spain for sheet development and the start-up of TMCI installations in Tarragona and Cadiz using the PM binder system.

STATUS

Based on the results from the three week trial program in Tarragona, Spain, it was finally agreed between PM, TMCI and Tabacalera to prepare additional finely ground Spanish tobacco for further development work in Tarragona on ASTA sheet (1, 2). As the WILLIAMS roller mill in Cadiz is not yet operational, the tobacco will be ground at NU WAY Tobacco Company in South Windsor, Connecticut, USA. Due to some delay in the shipment, the grinding will be done only at the beginning of October 1988. The trials in Tarragona are planned for November 1988.

As reported earlier, about 350 kg of the feedstock currently used on RCB/Monique in Onnens was sent to HOSOKAWA MICROPUL in Germany for some pre-trials in producing a finely ground product in their pilot plant using one of their impact mills.

2021607474

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Based on these pre-trials, carried out in July 1988, we decided to ship about 5'000 kg of feedstock to HOSOKAWA in Germany. After contact with R&D Richmond, it was decided to grind the tobacco to two different sizes. This was discussed with HOSOKAWA and accepted by them as being feasible (3).

The tobacco was shipped on August 24, 1988, and will be back in Onnens at the beginning of October (3). The trials in Onnens using this finely ground tobacco on the RCB/Monique-TMCI installation are planned for November.

REFERENCES

(1) Lüthi-N. Quarterly Report, April-June 1988, p. 48

(2) Gellatly-G. Note to Alonso-H., "Process evaluation weekly summary on ASTA reconstituted tobacco", August 2, 1988

(3) Lüthi-N. Fax to Simons-O., HOSOKAWA, "Mahlen von verschiedenen Tabakmaterialien", August 25, 1988

NIL/cav/October 20, 1988
qr388picanil

2021607475

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : PISSARRO

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lüthi-N. (NIL)

KEYWORDS : pissarro, expansion, trial, et, berlin, it, mti, fc, tobacco, br

---

OBJECTIVES

This project was implemented to carry out expansion runs in the ET installation at PMG-Berlin for MTI (Italian Monopoly), using 100% flue-cured tobacco delivered by MTI. It also involves our assistance to MTI for the installation and start-up of an ET plant in Bologna.

STATUS

In July, two additional laydowns of 10'000 kg of MTI tobacco (runs VII and VIII) were processed and expanded in the Berlin primary (1). The tobacco was, for the last time, composed of 60% Italian and 40% Brazilian flue-cured strips in the five different lots already known.

From August through December 1988, twenty-one additional laydowns of 10'000 kg of MTI tobaccos have to be expanded (2). For these runs a newly developed tobacco blend, composed of 10 different tobacco lots, has to be used (3).

The first delivery of these tobaccos caused some problems in Berlin. One tobacco lot representing 10% of the total blend was delivered in bales of 100 kg, which of course creates a lot of problems in an automatic process controlled system intended for the handling of cardboard cases of 200 kg (4). In addition, some of the raw tobacco was found to be infested.

These problems were finally solved in the following shipments of raw tobacco from MTI to Berlin by replacing this tobacco lot and by fumigating the other suspected tobaccos (5).

Due to these problems, the first laydown with this new tobacco blend was finally expanded on August 23, 1988, with a delay of about 10 days (1). Three further runs were then carried out during September.

2021607476

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

(1) Lüthi-N. Report to Trento-A., "Project Pissarro, expansion runs VII to IX for MTI in PMG-Berlin", September 14, 1988

(2) Trento-A. Profs note to Friedrich-H., "Programma espansione Pissarro", August 2, 1988

(3) Hansen-M. Profs note to Friedrich-H., "TLA per Pissarro", July 22, 1988

(4) Hofmann-H. Profs note to Trento-A., "ET for MTI, Project Pissarro", August 10, 1988

(5) Campani-S. Profs note to Hofmann-H., "Project Pissarro", August 12, 1988

NIL/cav/October 20, 1988
qr388pissnil

2021607477

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : TOBACCO PROCESS QUALITY (GIOTTO)

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Frattolillo-A. (ANF), Wood-C. (CWO)

KEYWORDS : tobacco, process, quality, giotto, pme

OBJECTIVES

- To provide tobacco quality comparisons between PME affiliates from the process point of pre-conditioning to the cigarette finished product.

  The program compares Pan-European and German Marlboro tobacco processes and will show the impact of individual unit processes upon tobacco quality in terms of sieve analysis, filling power, moisture control, and other quality parameters.

  These results will be used to evaluate process quality via standard procedures and common sampling points in a standardized reporting format to facilitate comparative analysis.

- To improve overall tobacco processing by optimizing tobacco process quality and reducing degradation and losses, thereby optimizing cigarette quality and maximizing yield.

STATUS

- Direct computer transmission of data to R&D from each affiliate is under study. Visits were made to Munich (Berlin) and Bergen op Zoom to understand the generation and management of this data locally. In the long term, options are fairly clear (one to two years). We are still trying to find some short-term solution which will benefit all concerned.

- Routine review three to four times per year, at each affiliate location, presenting results, trends and relationships of the process parameters to finished product quality. The first meeting was held in Berlin in May 1988.

2021607478

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

- At the request of EEC Area Operations, a meeting and presentation was held on June 21, 1988, to review the extension of this program to be included into a long term program (2 - 4 years) to encompass on a regional basis overall tobacco processes, equipment, yield improvement, and final cigarette quality and cost (5).

  The program was conceptually accepted with further detail and review at the affiliate locations, and commenced in August 1988 by Process Development.

- A status report, presentation and review of the GIOTTO extension program for regional primary optimization was presented to FTR Operations Management on September 21 in Neuchâtel.

  The program was accepted as presented with further resources having been identified within FTR for support of the program and additional data to be generated beginning in October 1988.

- During the September 26-27 Primary Managers' Meeting in Neuchâtel, the second review of 1988 GIOTTO data was conducted. Primary quality comparisons were made between two US factories (Stockton, M/C) versus Berlin, BOZ and Munich for 6 mesh, 35 + Pan, cylinder volume and OV throughout the primaries.

  First quarter 1988 data were used for these primary profile comparisons and were presented within the same format as GIOTTO quarterly reports (6).

PLANS

- Based on these studies for regional primary optimization, specific recommendations will be made by Process Development concerning the program timetable, human resources, priorities and program planning in October 1988.

- On a routine basis, evaluate process and cigarette quality results in relation to modifications, to tobacco processing, equipment changes, blend changes, capacity and flow rates, measurement methodology and process specifications.

- Based on consistent tobacco process quality improvements in combination with quality audit results, make recommendations in regard to process improvements, process specifications, and finished product weight and firmness objectives.

- Establish the program as an integral and continuous function for long-term aspects of process control and improvement of tobacco processing from tobacco receiving to the finished cigarette.

2021607479

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

Tobacco Process Quality Program :

(1) - 1987 Monthly factory results : Munich, Berlin, BOZ, February 10, 1988

(2) - 1987 Factory profiles : Mun., Ber., BOZ, March 8/9, 1988
- 1987 Factory comparisons : Mun., Ber., BOZ, March 8/9, 1988

(3) - GIOTTO Trip Report, March 7-10, 1988

(4) - Tobacco Process Quality Program Meeting, Berlin, May 10, 1988, Frattolillo-A. & Wood-C. to distribution

(5) - Regional Primary Optimization Program, May 27, 1988, Darrah-S. to distribution

(6) - Primary Profile Comparison, 1st Quarter 1988, PM-Richmond M/C and SS, PMG-Munich, PMG-Berlin, PMH-BOZ, by Wood-C., September 1988 presentation.

ANF/CWO/cav/October 11, 1988
qr388tpqanf

2021607480

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : TOYO

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lüthi-N. (NIL)

KEYWORDS : toyo, et, fc, tabacalera, es, mcf

OBJECTIVES

The aim of this project is to produce expanded tobacco in the ET installation in Onnens as a reference for the Marlboro ET qualification test of the new ET plant at Tabacalera SA in Cadiz, Spain.

STATUS

As reported earlier, a laydown of 2'000 kg of Spanish flue-cured strips was processed in the FTR primary on June 14, 1988, according to specifications for an ET-MES (ET 033) and was expanded the next day in Onnens (1). No special processing problems were encountered during the running of the trial.

The total of 1'840 kg of expanded tobacco, consisting of 46 cardboard cases of 40 kg net each, was shipped back to Tabacalera.

A report covering this trial was issued by the ET process engineer in Onnens (2). In addition, a summary of results concerning the trial was issued for the TTG in Richmond (3).

REFERENCES

(1) Lüthi-N. Quarterly Report, April-June 1988, p. 59

(2) Dufour-P. Report to Stoop-E., "Expansion test TOYO", July 7, 1988

(3) Lüthi-N. Report to Roberts-S., "Diet sampling for third parties, project TOYO", August 31, 1988

NIL/cav/October 20, 1988
qr388toyonil

2021607481

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : TRIAL ETB / FTR

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lüthi-N. (NIL)

KEYWORDS : trial, etb, ftr, expansion, et, ch, tobacco, penny, total, blend

---

OBJECTIVES

The aim of this project is to run expansion trials in the ET installation in Onnens for the FTR Leaf Department.

STATUS

Two laydowns of 1'000 kg each were processed in the FTR primary on July 5, 1988, and expanded the next day in Onnens. One laydown was for the purpose of trying to use Swiss tobacco in our tobacco blends, whereas the other was in the context of Project PENNY using total blend expansion technology.

No special processing problems were encountered during the running of the trials. Reports covering the trials were issued by the ET Process Engineer in Onnens and the undersigned (1, 2).

The necessary follow-up with the ET of the trials will be carried out by the FTR Leaf Department and Product Development Group.

REFERENCES

(1) Dufour-P., Lüthi-N. Report to Boeckle-H., "Essai d'expansion de tabac suisse", August 17, 1988

(2) Dufour-P., Lüthi-N. Report to Boeckle-H., "Essai d'expansion PENNY", August 17, 1988

NIL/cav/October 20, 1988
qr388tetbnil

2021607482

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : TURNER

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Frattolillo-A. (ANF), Wood-C. (CWO)

KEYWORDS : turner, burley, p&s, capacity, drying

OBJECTIVES

Assist PMH in achieving an increase in Burley production capacity to meet the forecasted requirements and provide adequate maintenance and cleaning time within the three shift primary operations.

Side technical support within the scope of achieving the increased throughput while maintaining current quality and subjective standards at a minimum of 1'700 kg per dryer per hour, up from 1'450 kg/h standard for each dryer.

STATUS

Process Development involvement began in January 1988 with batch trials conducted in BOZ varying process conditions, tobacco flow, and specifically Proctor & Schwarz dryer profiles for temperatures, apron speed, cooling section OV's, and reordering steam/water mix.

More recent trials have also included Hauni WA warming tunnels before the Burley spray cylinders and varied concentrations of Burley spray solutions for Marlboro production.

In September a trend towards positive subjective results from Panel A were achieved from trials run during week 26 with 1'700 kg/h (dry weight) for each of the two P&S dryers, using warming tunnels, normal Burley spray concentration, 9 cm carpet depth in the P&S and standard temperatures in the heating zones 100 - 100 - 95 °C. Panel A response was as follows :

"The taste character is in line with the standard quality, however we miss some response and tobacco body. The test with the enlarged bed (26072) is preferred and almost up to standard taste quality."

2021607483

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Based on these results, it was decided to confirm and repeat this trial and, in addition, evaluate the standard PM-USA temperature profile for P&S dryers which are typically lower than used in PME. These temperatures are 85 - 95 - 85 °C as an average between the four US cigarette factories.

Confirmation and new US profiles were conducted during week 35 in BOZ with the following formats :

Test	Flow/Dryer	Tunnels	Concentrated Spray	Temp. Profile
1.	1'700 kg/h	yes	123 lt/1000	85-95-85 °C
2.	1'700 kg/h	yes	130 lt/1000	90-95-90 °C
3.	1'700 kg/h	yes	normal	100-100-85 °C
Control	1'450 kg/h	no	normal	100-100-85 °C

Panel A evaluated these trials on September 29 and expressed a clear preference for test No. 1 or the standard US drying profile of 85 - 95 - 85 °C.

A full industrial trial to confirm these results was recommended by Panel A prior to final approval. These trials were scheduled for week 40 for industrial confirmation.

REFERENCES

(1) Newman-T.A. — to distribution, "P&S Dryers Cooling Zone OV's", November 11, 1986

(2) Van Heydonck-E. — to Peterse-J.H., "Capacity Increase Burley", March 10, 1987

(3) Committee Report — to distribution, "P&S Operating Standards", July 14, 1987

(4) De Borst-E. — to Friedrich-H., "Burley Capacity Increase", December 14, 1987

(5) Peterse-J.H. — to Wood-C., "Data Apron Capacity Increase Test Bergen-op-Zoom", January 18, 1988

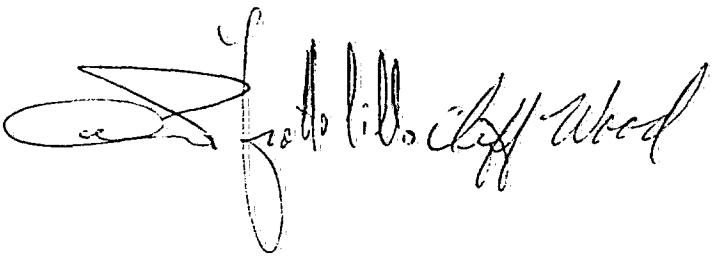
(6) Wood-C. — to Peterse-J.H., "Apron Dryer Capacity Increase BOZ", January 19, 1988

(7) Van Kalmthout-G., Appleboom-H. — to Loos-P., "MC after P&S dryers", March 16, 1988

2021607484

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

(8)	Van Kalmthout-G.	to Gally-A., "Chemical Analysis Apron Capacity Test", March 10, 1988
(9)	Frattolillo-A. Wood-C.	to Van Kalmthout-G., "Burley Line Capacity Increase and Chemical Evaluation", April 26, 1988
(10)	Frattolillo-A. Wood-C.	to Van Kalmthout-G., "Burley Capacity Trials", July 21, 1988
(11)	Van Kalmthout-G.	to distribution, "Capacity Increase P&S Dryers" meeting, August 26, 1988
(12)	Van der Scheun-H.J.	to distribution, "Capacity Increase Tests of Burley Line at BOZ on 01/09/88 and 02/09/88"
(13)	De Borst-E.	to Darrah-S., "Burley Capacity Increase BOZ", September 29, 1988



ANF/CWO/cav/October 11, 1988
qr388turncwo

2021607485

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : VELASQUEZ

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Wood-C. (CWO), Pulfer-P. (PEP)

KEYWORDS : expansion, hauni, philippines, tunnel

OBJECTIVES

- Assist PM-Asia in evaluating HAUNI-HT treatment of cut rag and cut stem for improved filling power, sieve quality and subjective evaluations using feedstock from La Suerte, Philippines, in co-ordination with PM-Hong Kong and TTG-Richmond.

- Conduct trials in the HAUNI Pilot Plant followed by processing of blends and flavoring in the Miniprimary, cigarette making, coded packing and analytical follow-up in Neuchâtel.

- Co-ordinate CI analysis samples for PM-Richmond and subjective samples for PM-Asia, PM-Richmond, La Suerte, Philippines, and Panel A, Lausanne.

STATUS

During week 39, sample strip blend and unprocessed stem were processed in the HAUNI Pilot Plant, Hamburg, using the HAUNI HT tunnels for two cut rag batches and two stem batches with one control batch for comparison without HT treatment on cut rag and stem. Extracts from the Hauni Test Report are given in the attachments.

Tobacco and stem materials were then shipped from Hamburg to Neuchâtel arriving September 30.

PLANS

Blend processing and aftercut application in the Miniprimary starting October 3, followed by production of cigarette prototypes and analytical work. It is anticipated that Process Development will report the test results and conclusion by the end of December 1988.

2021607486

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

(1) Winkle-T.S. to Costa-J.R., "Hauni HT Tunnel for Cut Filler", June 28, 1988

(2) Winkle-T.S. to Costa-J.R., "HT Tunnel - Cut Filler Tests", June 29, 1988

(3) Caltabiano-A. to Friedrich-H., "Philippines - Hauni Tunnel", August 5, 1988

(4) Harmsma-O. to Wood-C., "Philippines - Hauni Tunnel", August 18, 1988

(5) Harmsma-O. to Friedrich-H., "Philippines Hauni Tunnel Tests", August 23, 1988

(6) Caltabiano-A. to Friedrich-H., "Project Velasquez", August 25, 1988

(7) Caltabiano-A. to Wood-C., "Project Velasquez", August 29, 1988

(8) Caltabiano-A. to Friedrich-H., "Project Velasquez", September 15, 1988

(9) Caltabiano-A. to Pulfer-P., "Cigarette Paper", September 15, 1988

(10) Caltabiano-A. to Friedrich-H., "La Suerte Flowcharts", September 15, 1988

(11) Pulfer-P. to Hackmack-H. (HAUNI, Hamburg), "Project Velasquez Test Program", September 19, 1988

(12) Hackmack-H. to Friedrich-H., "Velasquez Test", September 21, 1988

C. Wood

P. Pulfer

CWO/PEP/cav/October 20, 1988
qr388velacwo

2021607487

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Körber AG

Abteilung Entwicklung Anlagen

Hamburg 80, den 11.10.1988
Hck/fk.-

Copy: 112 (4x)
122 (2x)
136
324 (2x)
325 (6x)
326 (4x)
350

Test Report

Subject: Strips/stem processing and HT-Expansion with the Hauni HT-Conditioner

Client: La Suerte Cigar & Cigarette Factory (P.M.) Manila/Philippines

Date: September 26./27.1988

The tests have been carried out in the presence of:

Mr. A. Caltabiano	- La Suerte, Manila
Mr. R. Fernandez	- La Suerte, Manila
Mr. S.H.J. Lamden	- La Suerte, Manila
Mr. T.S. Winkle	- La Suerte, Manila
Mr. W.V. Evans	- Philip Morris, Richmond
Mr. P. Pulfer	- FTR, Neuchâtel
Mr. C.A. Wood	- FTR, Neuchâtel

1.) Testmaterial:

Hauni received approx. 1200 kg strips with a moisture content of 12.6 % and approx. 500 kg stems with a moisture content of 12.5 %.

2.) Test procedures:

2.1.) Strips/Cut-Rag processing:

The strips-blend has been conditioned in an HT-Conditioner to a target moisture of 19 % and were then directly fed into an Hauni-KTC-Cutter.

After cutting the rag was directly submitted to the HT-Expansion-Process (except Test 4, 101) immediately followed by counter current (Test 5, 202) and co-current (Test 6, 212) rotary drying.

For details see attached flow sheet, Annex 1.

2021607488

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2.2.) Stem/CRS processing

In order to simulate a pre-conditioning process followed by an intermediate storing stage, the stems were conditioned in an HT-Conditioner to a target moisture of approx. 28 % m.c. Storing time to absorb the applied water: 16 hours.

After this, the stems passed a second conditioning process in connection with an intensive steaming in a second HT-Conditioner (90 - 95° C) prior to rolling. To remove excessive surface water which usually causes additional pull-outs at cutting, the stems then passed through a pneumatic cooling system.

After cutting the CRS was directly submitted to the H.T.-Expansion-Process immediately followed by rotary (Test 1, 303 and Test 2, 404) and fluidized bed drying (Test 3, 505).

All important details about the test procedure are shown in the attached flow sheet, Annex 1.

3.) Sampling and laboratory proceeding:

Tobacco moisture:

Five samples each were taken after pre-conditioning, after cutting, after H.T.-Expansion and after drying/cooling. Sampling was done, when process conditions had stabilized.

From each sample two moisture determinations were carried out by means of oventests. (HERAEUS-OVEN, 3 hrs, 100° C, 10 g sample weight).

Filling power:

From each test one larger sample (approx. 2 kg) was taken after drying/cooling for the determination of tobacco filling power. After conditioning these samples in a climatic test cabinet for approx. 3 days in order to achieve a moisture equilibrium, the filling power has been measured with a BORGWALDT-Densimeter. (Sample weight 20 g, load 3 kg, time 30 sec.)

From each sample 10 filling power determinations and the corresponding moisture determinations were carried out on two moisture levels.

The regression lines for filling power as function of tobacco moisture were calculated and plotted. (See attached graphics, Annexes 2 (cut-rag) and 3 (CRS).

2021607489

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Fibre distribution:

From each test a second 2 kg-sample was taken after drying/cooling for the determination of the fibre distribution.

From each sample 10 screening tests were carried out with a LAVIB-Screening-Shaker, Type St 67. Sample weight 50 g, average tobacco moisture 13.75 %, screening time 10 minutes.

All laboratory results and collected test parameter are shown in the following synopsis "Test parameter and laboratory results".

4.) Test parameter and laboratory results:

4.1.) Strips/Cut-Rag:

		Reference Test 4. (101)	Test 5. (202)	Test 6. (212)
Initial tobacco moisture	%	12.6	12.6	12.6
Feed rate	kg/h	600	600	600
Steam pressure at conditioning	bar	1.5	1.5	1.5
Water addition at conditioning	l/h	31	31	31
Cutting width	mm	0.85	0.85	0.85
Moisture after cutting	%	19.7	19.7	19.7
Steam pressure at HT-Expansion	bar	./.	3	3
Moisture after HT-Expansion	%	./.	21.6	21.6
Feed rate at rotary drying	kg/h	680	650	650
Steam pressure at rotary drying	bar	2.5	2.6	1.2
Processair temp. at rotary drying	°C	95	95	99
Counter-current air flow	m/s	0.15	0.15	./.
Co-current air-flow	m/s	./.	./.	0.45
Moisture after drying/cooling	%	13.2	13.4	13.3
Filling power at 12.8 % m.c.	mm	**34.6**	**36.69**	**36.93**
Tob. temp. after HT-Tunnel	°C	./.	94-98	92-94
Tob. temp. before dryer	°C	25	60	60
Tob. temp. exit dryer	°C	70	65	65

2021607490

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Fibre distribution after drying/cooling:

Mesh sizes	Test 4. (101) 13.7 % m.c.	Test 5. (202) 13.7 % m.c.	Test 6. (212) 13.7 % m.c.
> 4 mm	7.44 g	9.6 g	7.17 g
	14.9 %	19.2 %	14.4 %
> 2 mm	16.01 g	16.94 g	16.25 g
	32.2 %	34.1 %	32.7 %
> 1 mm	16.27 g	14.95 g	16.76 g
	32.7 %	30.1 %	33.7 %
> 0.5 mm	9.2 g	7.43 g	8.89 g
	18.5 %	14.9 %	17.5 %
Pan	0.83 g	0.85 g	0.86 g
	1.7 %	1.7 %	1.7 %

4.2.) Stem/CRS		Reference Test 1. (303)	Test 2. (404)	Test 3. (505)
Initial tobacco moisture	%	12.5	12.5	12.5
Tob. moisture after pre-conditioning	%	27.6	27.6	27.6
Storing time	hrs	16	16	16
Tob. temp. before flattening	°C	95	95	95
Roller distance	mm	0.8	0.8	0.8
Tob. temp. after flattening	°C	71	71	71
Tob. temp. after cooling	°C	36	36	36
Cutting width	mm	0.15	0.15	0.15
Tob. moisture after cutting	%	33.7	33.7	33.7
Steam pressure HT-Cond.	bar	./.	7	10
Tob. moisture after HT-Expansion	%	./.	36.2	./.
Tob. temp. after HT-Expansion	°C	./.	98	103
Processair temp. rotary dryer	°C	95	95	./.
Co-current airflow	m/s	0.45	0.45	./.
Steam pressure rotary dryer	bar	4.9	4.8	./.
Processair temp. Vibro-dryer	°C	./.	./.	180
Tob. moisture after drying/cooling	%	13.7	14.1	14.3
Tob. filling power at 13 % m.c.	mm	29.48	34.07	37.28

2021607491

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Fibre distribution after drying/cooling:

Mesh sizes	Test 1. (303) 13.83 % m.c.	Test 2. (404) 13.63 % m.c.	Test 3. (505) 13.81 % m.c.
> 4 mm	0.32 g	0.21 g	0.28 g
	0.6 %	0.4 %	0.6 %
> 2 mm	2.78 g	8.65 g	14.75 g
	5.6 %	17.4 %	29.5 %
> 1 mm	33.1 g	32.57 g	27.92 g
	66.4 %	65.3 %	55.9 %
> 0.5 mm	12.19 g	7.02 g	5.52 g
	24.4 %	14.1 %	11.0 %
Pan	1.48 g	1.4 g	1.5 g
	3.0 %	2.8 %	3.0 %

5.) Summary:

No difficulties occured in the handling of both testmaterials at any stage of the process.

The filling power results of both testmaterials correspond with our expectations.

Hck.
(Hackmack)

2021607492

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : PROCESS DEVELOPMENT

SUBJECT TITLE : WEASEL

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lüthi-N. (NIL)

KEYWORDS : weasel, tobacco, blend, mlf, expansion, et, ch, bur, fc, ml

---

OBJECTIVES

The aim of this project is to try to develop a new tobacco blend for Marlboro giving the same taste characteristics as the current blend.

STATUS

In the context of this project, two expansion trials were carried out in Onnens. Two laydowns of 1'000 kg each were processed in the FTR primary on September 8, 1988, and expanded the next day in Onnens.

Two newly developed tobacco blends, both consisting of 10% Burley, 78% Virginia and 12% Maryland tobacco but of different grades, were used in these two runs (1).

No special problems were encountered during the running of the trials. Reports covering the trials were issued by the ET process engineer in Onnens and the undersigned (2).

The necessary follow-up with the ET of these trials will be carried out by the Product Development Group.

REFERENCES

(1) Babey-J. Memo to Boeckle-H., "ETNA trials, Weasel", June 7, 1988

(2) Dufour-P., Lüthi-N. Report to Babey-J., "Essais d'expansion Weasel", October 3, 1988

NIL/cav/October 20, 1988
qr388weasnil

2021607493

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607494

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : NEW PRODUCT DEVELOPMENT

SUBJECT TITLE : PRODUCT INNOVATION

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : ABDELGAWAD-A. (AHA)

KEYWORDS : project,volga,amour,venoge,cigarette,filter, delivery,puff-by-puff,profile,hollow-filter, ultra-low-tar,menthol,ca-web,tube-in-tow

---

PROJECT VENOGE - NO 0275

Objective

To develop a 9 mg tar cigarette offering mildness, cleanness and freshness.

Status

Referring to our last report (ref. 1), new prototypes following the panelists advice were produced. These prototypes were smoked versus prototype 3C1 which was preferred by the panelists. In general, prototype 3C1 was evaluated as being a clean, fresh product but too much in the menthol direction. For this reason, we adjusted our trials to reduce the quantity of menthol on foil to the lowest level possible.

Furthermore, we used tobacco blends having a small note of menthol in the aftercut solution. In this way, several prototypes were made with standard PMS, Bingo-low and Thames blends.

Plans

The above-mentioned prototypes will be smoked by the expert panelists.

Reference

[1] Abdelgawad-A, Quarterly Report, April-June 1988.

2021607495

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT VOLGA - NO 0164

Objective

To develop tube-in-tow filters in order to produce 1 mg, 4 mg and 6 mg tar cigarettes (84 mm length) with improved initial puffs.

Status

Referring to our last report (ref. 1), we did not find improvements by moving the perforation center to 16 mm from the mouth end. The reason may be that the RTD of the material around the tube was not high enough to force smoke across the tube.

We therefore ordered tow (1.5Y/46000) from Rhodia which should give optimum RTD (825 mm WG) for a rod length of 114 mm and a diameter of 7.68 mm.

A series of filters will be produced in Intertaba Bologna in a format of 25 mm (19/6).

Plans

A series of prototypes will be produced and their puff-by-puff profile evaluated.

Reference

[1] Abdelgawad-A, Quarterly Report, April - June 1988.

PROJECT AMOUR - NO 0131

Objective

To develop hole-in-tow filter in order to produce 1 mg, 4 mg, 6 mg tar cigarettes (84 mm length) with improved initial puffs.

Status

Same considerations as project Volga.

2021607496

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT ZAMBEZI - NO 0180

Objective

To evaluate the CA web as a filtration material.

Status

Referring to our last report (ref. 1), we produced cigarette prototypes constructed with standard PMU filter and filter in which the paper segment was replaced by CA web material.

Smoking results

Cig. code		1P	2P	1NV	2NV
Format	[mm]	----------84/25/7.9----------			
Blend code		---------PM027 (ZA729)----------			
Version		----------A----------			
Filter type		st.PMU	CAWeb	st.PMU	CAWeb
Filter RTD	[mm WG]	137	126	141	127
Filter efficiency	[%]	87 *	86 *	77 *	75 *
Dilution	[%]	64	65	--	--
Cig. RTD	[mm WG]	94 **	87 **	172 **	158 **
Tar	[mg/cig]	1.6	1.7	6.2	6.3
SN	[mg/cig]	0.11	0.12	0.42	0.41
CO	[mg/cig]	3.5	3.3	12.1	12.5
NO	[mg/cig]	0.07	0.06	0.16	0.16
Puff Count		7.5	7.7	6.2	6.0

In the above smoking data, it should be pointed out that both filters constructed with paper and CA web materials give the same efficiency (*), in spite of the lower RTD (**) of CA web filter. The taste evaluation was as follows :

Prototypes (1NV, 2NV) : "Both products are not very pleasant. They are darkish, acidic and harsh. However, there is a tendency that the new CA Web is slightly cleaner".

Prototypes (1P, 2P) : "We prefer the reference (1P). The smoke is more pleasant, less "cool" than the CA Web. The CA Web makes the taste less round, more acidic and bitterish.
General : Although positive on a non-ventilated product, we believe that a lower RTD combined with a higher dilution is less attractive. We should repeat the test versus the lower RTD "German product".

Plans

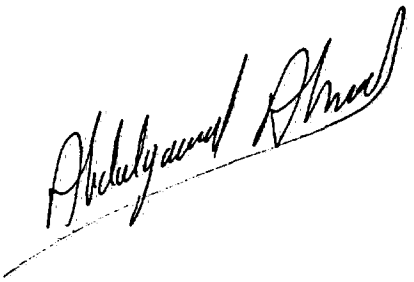
The CA Web filter will be used to produce cigarette prototypes having 4 mg tar and using tobacco blend Nile (total blend expansion) in two aftercut versions (PMS and PMU).

2021607497

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Reference
---

[1] Abdelgawad-A, Quarterly Report, April - June 1988.



AHA / 06.10.88

2021607498

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : NEW PRODUCT DEVELOPMENT

SUBJECT TITLE : PRODUCT INNOVATION

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : DE ZUANNI-M. (MDZ) AND BRAEM-D. (DAB)

KEYWORDS : nile,blend-expansion,euphrate, low-cost,cigarette

PROJECT NILE - NO 4024

Objective

General evaluation of total blend expansion technology.

Status

Following our last report (ref. 1), we produced a full flavour cigarette (construction MLK) using Nile-3 recipe and a low tar product with the construction of MLZ using Nile-4 blend. Both blends were obtained by mixing expanded Burley, expanded Virginia and expanded Oriental tobaccos following by flavouring.

After subjective evaluation (Ref. 2), the panelists recommended continuing the development with Nile-3 blend for both MLK and MLZ constructions. Furthermore, the flavour was slightly modified in order to obtain more Burley casing notes.

Following these recommendations, a new series of prototypes was produced. Table 1 gives specifications and analytical results for full flavour prototype 51P and MLK15 (reference), and low tar prototype 49P compared to reference MLZ01.

Table 1 clearly shows that total expanded tobacco allows us to make full flavour as well as low tar cigarettes with 15-20 % less tobacco than conventional cigarettes. Total weight does not exceed 850 mg/cig and puff count is very close to the reference. Furthermore, CO delivery is strongly in favour of prototypes 51P and 49P.

Results of the taste evaluation by panelists (ref. 3)

"MLK version is superior in taste perception to MLZ configuration. However there is still a cellulosic, bitterish note which needs to be masked. We need more roundness, more salivation higher sweetness".

2021607499

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

References

[1] De Zuanni-M., Quarterly Report, April-June 1988, P. 66
[2] Taste evaluation, Panel A, dated July 21, 1988
[3] Taste evaluation, Panel A, dated October 5, 1988

TABLE 1 - PROJECT NILE

Prototype	51P	MLK15	49P	MLZ01
Blend	Nile-3	ML022	Nile-3	ML022
Cig. construction	MLK	MLK	MLZ	MLZ
Cig. length	84	84	84	84
Filter length	21	21	27.5	27.5
Total weight	834	962	816	950
Tobacco weight	614	741	543	671
Cig. RTD	123	100	126	113
Dilution	8	14	35	30
OV as is	12.2	13.1	12.0	13.2
Firmness as is	2.70	3.38	2.75	3.49
Firmness at 12.5 % OV	2.81	3.15	2.97	3.24
Tar	16.0	15.7	6.5	8.8
SN	1.29	1.07	0.63	0.63
CO	11.5	15.8	7.4	12.5
Puff Count	8.5	8.6	7.9	7.7

2021607500

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT EUPHRATE - NO 4023

Objective

To develop a low cost product using total blend expansion technology.

Status

Detailed calculation showed that adding stems to the total expanded tobacco used in this project does not reduce the cost of the blend (see Ref. 1).

Thus, we continued the development of a low cost product by using the total expanded blend containing 29.3 % Burley, 37.2 % Virginia and 33.5 % Oriental tobacco.

In addition, the blend was flavoured and a special cigarette paper was used in order to counterbalance the fast burning rate of the low grade tobacco.

Table 1 gives characteristics and analytical data of prototypes 8P and 11P with MLK15 as reference.

Result of the taste evaluation by the panelists (Ref. 2)

"Taste is at acceptable level for the objective. 8P is the best alternative and will be used for reference. Trial will be made with "salt casing" and normal cigarette paper with the objective to maintain the puff count. Flavour improvement will be looked at as for project Nile".

References

[1] De Zuanni-M., Quarterly Report, April-June 1988, P. 69
[2] Taste evaluation, Panel A, dated October 5, 1988

MDZ / DAB / cog / 06.10.88

2021607501

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

TABLE 1 - PROJECT EUPHRATE

Prototype	8P	11P	MLK15
Cig. paper	VLB 10 SI	VLB 10 SI	WP 60
Blend	Exp. blend	Exp. blend	ML022
Cig. length	84	84	84
Filter length	21	21	21
Cig. RTD	99	113	100
Ventilation	29	16	14
Firmness as is	2.40	2.48	3.38
OV as is	11.2	11.4	13.1
Firmness 12.5 %OV	2.93	2.94	3.15
Tobacco weight	525	526	741
Total weight	727	728	962
Tar	13.7	16.0	15.7
SN	1.00	1.09	1.07
CO	10.3	11.0	15.8
Puff	8.0	7.4	8.6

2021607502

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : NEW PRODUCT DEVELOPMENT

SUBJECT TITLE : CIGARETTE DEVELOPMENT EEC

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : CHEMLA-MR (MRC)

KEYWORDS : project,chess,gull,ulysse,turnix,jeep, fr,nl,gr,be,uk,audrey,zeus

---

PROJECT CHESS (UK) - NO 0195

Objective

Blind product test of Raffles King Size currently produced in Silvertown versus Benson and Hedges and versus John Player Special.

Status

50'000 Raffles, 25'000 Benson and Hedges and 25'000 John Player Special were unpacked, overtipped, repacked and sent back to UK at the end of July.

Tastewise and analytically, the cigarettes were fully in line with expectations.

PROJECT GULL (BE) - NO 0801

Objective

Blind product test of Marlboro Red in Belgium.

- Marlboro King Size ex-Berlin versus Camel Long Size
- Marlboro King Size ex-Berlin versus Marlboro King Size ex-BOZ
- Marlboro King Size ex-BOZ versus Camel Long Size

2021607503

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Status

192'000 Marlboro (Berlin, BOZ), 96'000 Belgian Camel were unpacked, overtipped, repacked and sent back to Belgium the first week of October.

Tastewise and analytically, the cigarettes were up to standard.

PROJECT ULYSSE (GR) - NO 0194

Objective

Blind product test of the German LM full flavour (15.0/1.0) versus the German LM Mild (13.0/0.8).

Pack product test of the German LM full flavour packed in LM full flavour boxes (blue-red) versus the same cigarette but packed in LM Mild box (red-white).

Status

Both test were prepared by PMG in Munich. A total of 180'000 cigarettes were sent to Greece at the beginning of July.

PROJECT TURNIX (NL) - NO 0802

Objective

Blind product test of Marlboro Red in Holland.

- Marlboro King Size ex-Berlin versus Camel King Size
- Marlboro King Size ex-Berlin versus Marlboro King Size ex-BOZ
- Marlboro King Size ex-BOZ versus Camel King Size

Status

168'000 Marlboro (Berlin, BOZ), 84'000 Dutch Camel were unpacked, overtipped, repacked and sent back to Holland the first week of October.

Tastewise and analytically, the cigarettes were up to standard.

2021607504

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT JEEP (FR) - NO 0199

Objective

Blind product test of Marlboro Red in France.

- Marlboro King Size ex-Munich versus Camel King Size
- Marlboro King Size ex-BOZ versus Camel King Size
- Marlboro King Size ex-Berlin versus Camel King Size
- Marlboro King Size ex-Berlin versus Marlboro King Size ex-BOZ

Status

210'000 Marlboro (Munich, Berlin, BOZ), 126'000 French Camel were unpacked, overtipped, repacked and sent back to France at the end of August.

Tastewise and analytically, the cigarettes were up to standard.

PROJECT ZEUS (GR) - NO 0193

Objective

Introduction of ETNA in the Marlboro cut filler used in Greece.
Format : 7.90/21/84 mm
Tar : 16 mg/cig
SN : 1.0 mg/cig

Status

Three different levels of ETNA were tried (7 %, 10 % and 13 %). Prototype 6P with a cut filler using 10 % ET was selected and will be presented to Management.

PROJECT AUDREY (DB) - NO 0120

Objective

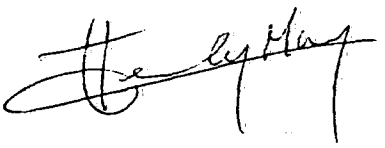
To reduce the smoke nicotine on the Marlboro Lights King Size (MLX-12) to the target : 0.40 mg/cig.
Format : 7.90/25/84 mm
Tar : 6.0 mg/cig
SN : 0.4 mg/cig

2021607505

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Status

Prototype 10C using the PMS filter was selected. The new production, beginning in September, started accordingly.



MRC / cog / 05.10.88

2021607506

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : NEW PRODUCT DEVELOPMENT

SUBJECT TITLE : CIGARETTE DEVELOPMENT EEMA

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Lizzi-R (RLI)

KEYWORDS : project,laredo,wilcox,jasper,danville, glendive,rabat,ch,si

---

PROJECT LAREDO (CH) - NO 0156

Objective

To develop a Philip Morris Ultra for Switzerland.
Format : 7.90/27.5/84.0 mm
Tar : 1.0 mg/cig
SN : 0.1 mg/cig

Status

Prototype 8P was selected for production. A new blend was created (PM027), and production started at FTR mid-August.

PROJECT WILCOX (CH) - NO 0205

Objective

To develop an L&M KS for Switzerland.
Format : 7.90/21.0/84.0 mm
Tar : 15.0 mg/cig
SN : 1.2 mg/cig

Status

Prototype 2P with same blend as Bond family Sweden (BS011) was selected. Preliminary specifications were made accordingly.

2021607507

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT JASPER (CH) - NO 0162

Objective

Open and blind test on MAK (tipping aspect change).

Status

Cigarettes were produced at FTR. MAK standard vs MAK cork tipping (open test). MAK without logo vs MAK cork tipping without logo (blind test). The cigarettes were delivered beginning of July.

PROJECT DANVILLE (CH) - NO 0800

Objective

To develop a 8 mg tar (STAR) cigarette.
Format : 7.90/27.5/84.0 mm
Tar : 8 mg/cig

Status

Prototype 9P with same blend as Bond family Sweden (BS011) was selected.

PROJECT GLENDIVE (CH) - NO 0209

Objective

To develop a Muratti delivering 8 mg tar (single acetate filter).
Format : 7.90/27.5/84.0 mm
Tar : 8 mg/cig

Status

The prototype 4P from project "Danville" (Liberty blend version A) was selected for further development.

2021607508

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT RABAT (SI) - NO 0819)

Objective

To reduce the humectants on PM019 blend (spotting problems on cigarette paper).

Status

Prototype 1P was made with the modified blend PM019 (humectants reduced) and sent to Saudi Arabia together with current PMS03. 20'000 cigarettes PMSR1 and 20'000 cigarettes 1P were packed according to the PMS03 packaging specifications. The cigarettes left Switzerland beginning of September. They will be returned in a month's time for evaluation.

RLI / cog / 03.10.88
qr388cdrli

2021607509

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : NEW PRODUCT DEVELOPMENT

SUBJECT TITLE : FLAVOUR DEVELOPMENT

PERIOD COVERED : MARCH - SEPTEMBER 1988

WRITTEN BY : FATTON-JP (JPF)

KEYWORDS : flavour,casing,menthol,taste, venoge,nile,thames,danube,hoggar

---

PROJECT VENOGE - NO 0275

Objective

To develop a 9 mg tar cigarette delivering a clean and fresh taste without pronounced menthol cooling sensation.

Summary

3P and 3C1 cigarettes were smoked by Panel A and found to deliver the right taste characteristics. Suggestions were made in order to produce prototypes in the same line but delivering even less menthol cooling sensation.

Description

To reach the right level of freshness, we developed EAC-228 and EAC-230 which have the same composition as EAC-216 but containing 400 g and 600 g of menthol per 25 liters.

At the same time, trials were made using EAC-231 and EAC-232 which are variants of PMS-AC containing menthol. These flavours were applied on blends Bingo low, Thames and Nile. The taste expected from these prototypes is fresh and clean but still tobacco-like without non tobacco distinct notes.

Follow-up

Prototypes will be supplied to Panel A for smoking evaluation after the proper ageing and stabilisation period.

2021607510

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PROJECT NILE - NO 4024

Objective

To develop a flavour system for a fully expanded blend cigarette with an American blend taste direction.

Description

In order to avoid contamination of the ETNA installation with traces of a new casing material, development was only an aftercut solution.

The main taste target is to deliver a smooth, rich American blend taste. The aftercut solution EAC-229 was developed so as to include concentrated extracts of the products usually incorporated at different steps of a normal primary run.

Evaluation

Prototypes were made with a tobacco blend sprayed with the standard ETNA casing and 23.1 liters of EAC-229 sprayed after expansion. Panel A pointed out the improvement of the taste compared to non-flavoured prototypes but the taste is still too much to the woody cellulosic side.

Follow-up

A new version of EAC-229 will be developed in order to add more sweet, aromatic notes to the smoke.

PROJECT THAMES - NO 0724 / PROJECT DANUBE - NO 0150

Objective

To develop cigarettes at various tar levels with non-tobacco and distinct taste directions.

2021607511

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Description

To explore a wide range of aromatic directions, cigarettes were made with a tobacco flavoured with seven different flavours :
- citrus
- floral
- fruity
- mint (non-menthol)
- anise
- spicy
- vanilla

The taste evaluation result of these products clearly showed that the taste delivered by these prototypes is found by all the participants to be distinctive and less tobacco-like than the usual product. As the participants were not used to smoking such cigarettes, it was almost impossible to determine a preference even if there is a clear tendency to accept the ones evoking current foodstuff products (citrus, fruity, mint, anise, vanilla).

Follow-up

The same exercise will be repeated in project Danube by incorporating flavoured granules in a plug-space-plug filter type. The expected improvement of the Danube type versus Thames type is to deliver a cleaner taste and a sharper character of each aroma especially for citrus notes.

PROJECT HOGGAR - NO 0165

Objective

To give assistance to the Algerian Monopoly (SNTA) to improve their Hoggar cigarette by applying flavour and casing.

Description

The taste of the cigarettes produced during our first stay in Algeria was found to be smooth, full and aromatic. The casing and flavour helped to cover the woody earthy taste delivered by the locally available tobacco and to improved the taste quality up to a satisfying level.

A fine tuning trial was run in order to improve minor details such as slight spotting on the cigarettes and check whether the improvements made to the primary are efficient enough to reach the level of uniformity required for a good quality product.

2021607512

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

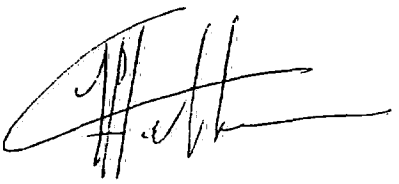
Applications
---

70 l of EEPC-3 were sprayed per 1000 kg of total blend in order to reduce the spotting risk.

25 l of EEAC-1 were sprayed per 1000 kg of total blend in order to maintain the same aromatic taste.

Conclusion

Industrial trials should be run to check all parameters of primary and secondary. Tastewise, the cigarettes are of good quality.



JPF / cog / 07.10.88
qr388fdjpf

2021607513

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : NEW PRODUCT DEVELOPMENT

SUBJECT TITLE : STUDIES AND MODELLING

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : BADERTSCHER-T (TBA)

KEYWORDS : spade,tipping,plugwrap,ventilation

PROJECT SPADE - NO 8504

Objective

Predict the filter material to use (tipping and plug wrap) to obtain the ventilation level calculated by the cigarette model.

Status

The air-permeability of tipping/plug wrap combination

Analogous to Ohm's low of electrical resistance (ref 1) :

$$J = \frac{U}{R}$$

$$R = \sum_{1}^{i} R_i \quad \text{(Serial)}$$

$$J = \frac{U}{\frac{U_1}{J_1} + \frac{U_2}{J_2}}$$

2021607514

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

the permeability of a tipping/plug wrap combination can be calculated as follows :

$$P_{comb} = \frac{\Delta\ p\phi}{\frac{\Delta p\phi}{P_{tipp}} + \frac{\Delta p\phi}{P_{pw}}}$$

where P_{comb} = permeability of the combination tipping/plug wrap [CU]

ΔP_{ϕ} = pressure drop at which the permeability was measured

P_{tipp} = permeability of the tipping paper [CU]

P_{pw} = permeability of the plugwrap [CU]

The pressure drop Δp_{ϕ} is always 1kPa (standard method).

$$P_{\phi} = \alpha . \frac{P_{tipp} \cdot P_{pw}}{P_{tipp} + P_{pw}}$$

P_{ϕ} = permeability of the combination

α = correction factor

α can be considered as "machining factor" or "contact factor". The parameters which influence α are manifold e.g. :

- hole size and geometry of the tipping paper (active surface).
- roughness of the contact surfaces of tipping/plugwrap.
- glue type, viscosity, temperature.
- applied pressure on the tipping/plug wrap at the filter assembler.

Combined permeability - ventilation

For several of our brands the P_{ϕ} values were calculated using the specified values of tipping paper and plug wrap permeability and considering the correction factor α = 1.

2021607515

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

These values were plotted versus the Q_ϕ-values calculated according to the formula reported in the last Quarterly Report (ref. 2).

$$Q_\phi = \frac{Q_{vent}}{0.1182 + 1.2192 \cdot \Delta p - 0.3498 \cdot \Delta p^2}$$

The analytical values (RTD cigarette, RTD filter and ventilation) used to calcuate Q_ϕ are the mean values of four months' product monitoring, reported by the Manufacturing Services Group (MSG).

These graphs are shown on fig. 1 for electroperforated tippings and medium porous (2400 CU) plugwraps and fig. 2 for electroperforated and microlaser tippings combined with high porous (9500 CU) plug wraps.

Both curves have more an exponential shape than the 1 to 1 graph expected, due to mainly two reasons :

a) the formula used to calculated the pressure drop across the vents, i.e.

$$p_v = \Delta p_{up}^{\phi} \cdot (1-D) = \Delta p_{up}$$

considers only the axial pressure drop along the cigarette but not the radial pressure drop and does not exactly represent the pressure drop over the tipping/plug wrap.

b) The previously mentioned correction factor α :

An example is shown on fig. 2 (points 3M and 6M). These are two microlaser perforated tippings having the same permeability and same hole size but in :

a) 3M = 3 rows
b) 6M = 6 rows

The paper with 6 rows gives higher Q_ϕ values (i.e. higher ventilations). See in this context also ref. 3.

2021607516

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Correlations

a) Electroperforated tippings combined with medium porous plug wrap.

A good correlation between Q_ϕ and P_ϕ was obtained in the form

$$\ln P_\phi = 1.229 \cdot \ln Q_\phi - 0.7358$$

$$r^2 = 0.996$$

or $$P_\phi = 0.4791 \cdot Q_\phi^{1.229}$$

With this correlation the tipping paper permeability can be predicted satisfactorily for practice without knowledge of the correction factor α . The range of permeability covered is from 42.5 CU (Z3/10) to 510 CU (Z4/120).

B) Electroperforated and Microlaser perforated tippings combined with high porous plug wraps.

More results will be necessary to obtain statistically significant correlations and with the number of rows as additional parameter for Microlaser perforated tippings.

Plans

- Manufacture prototypes with a filter rod instead of the tobacco rod. By cutting this upstream rod (with a non porous plug wrap) various upstream pressure drops can be obtained and therefore different ventilations with the same tipping/plug wrap combination.

- Investigate the behaviour of filters with more than one plug wrap (combined filters).

References

[1] Schneider-W et al
The Effects of the Properties of Materials in a Cigarette on Filter Ventilation
Beitr. Tabakf. Int. Vol 12, 1984, p.123

[2] Badertscher-T
Quarterly Report, qr288smtba, April-June 1988, p.83

[3] Kim-S-H et al
Effect of Tipping Paper Permeability on the Ventilation of Filter Cigarettes
Journal Korean Soc. Tob. Sci, Vol 6 (1), 1984, p.79

TBA / cog / 06.10.88
qr388smtba

2021607517

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

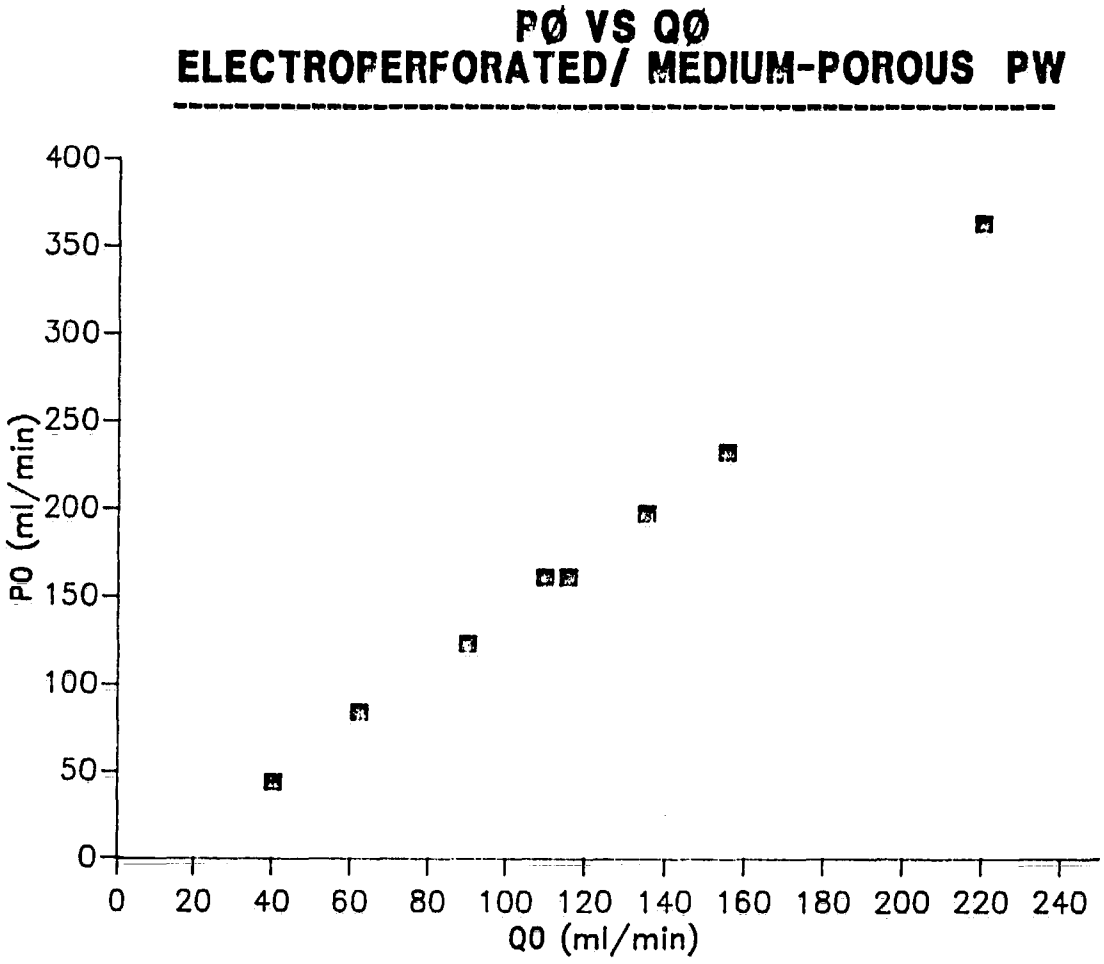


Fig. 1

2021607518

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

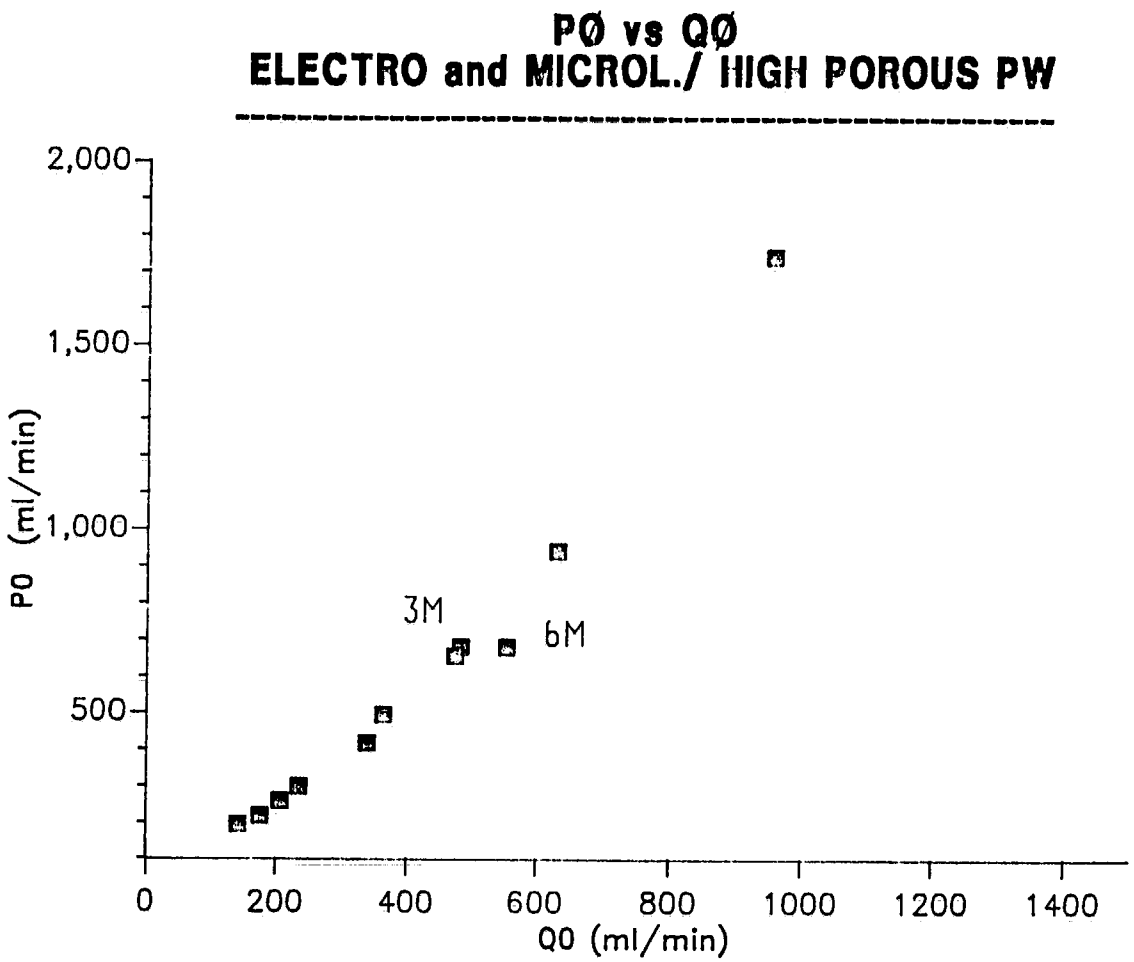


Fig. 2

2021607519

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607520

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : MATERIAL TESTING

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Kürsteiner-C. (CHK)

KEYWORDS : Force, blank, sliding, spring, crushing, filter, tipping, paper, inner foil, varnish, bundle.

INCOMING INSPECTION FOR FTR

The incoming inspection of non-tobacco materials used by FTR gave the following results :

- 323 deliveries were inspected
- 9 deliveries were refused

Refusals concerned cigarette materials and packaging materials.

Incoming inspection of inner foil for mentholation at affiliates continued.

QUALIFICATION TRIALS

The qualification trials for cigarette and packaging materials carried out during the reporting period were guided by the objectives of :

- improving the quality of our products
- standardizing the materials used in Europe
- evaluating alternative suppliers

HL Blanks

MLB-CH HL Blanks with a spickel were tested in view of obtaining a better finished product quality. The test was negative.

Due to runnability problems which occurred on MLB-XD HL Blanks, a version with new spring back force of scores was tested. The test was positive. These new scores will now be introduced at all suppliers.

2021607521

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Due to a printing machine change at the supplier, the production of the MLY-SW HL Blank had to be changed from long grain into short grain fiber. The test was negative. A new trial will start with new scores.

Inner foil

In order to reduce cutting problems with the inner foil used on the HLP 5 machine, a trial with a double bobbin reeled on one inner core was tested. The test was negative.

In order to qualify a second supplier, an initial trial was made with inner foil used to produce the MPH cigarette. The test was positive; an industrial trial will be made with this material.

Filter paper

Special lab trials were undertaken with different types of tipping papers together with a new high porous filter paper. The objective was to determine whether the air flow across the tipping paper and the filter paper will be comparable to the other suppliers' and to make sure that the dilution of the cigarette will be obtained according to specification. The test was negative. A new trial will start with a higher air permeability of the filter plug wrap.

Tipping paper

An initial trial with new white base paper for the Merit brand which should improve glueability and finished product quality has been made on the MK9-5/Max-S and Protos machine. Tastewise the material was accepted as well as for the initial runnability trial. An industrial trial will be undertaken.

An industrial trial performed on the MAG brand with the objectives of improving glueability and finished product quality has been completed. However some small adaptations of this base paper quality will still have to be made.

ASSISTANCE TO LICENSEES AND HEADQUARTERS

Various tests were carried out upon request.

SUPPLIER CONTACTS

The correlation program is continuing.

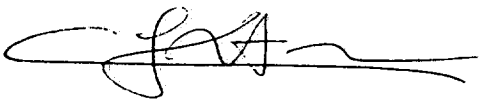
2021607522

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

SPECIAL PROJECTS

Due to complaints from the Italian market about bundle paper, it was decided to increase the quantity of anti-slip additive in the surface varnish. In order to ensure that no runnability problems would occur, sliding resistance measurements of the bundle paper were made. The results obtained showed that the increase of anti-slip slightly modifies static sliding resistance when compared to the standard. No significant difference of static and dynamic sliding resistance could be observed when the material was tested in both machine direction and cross direction.

Due to pack modification of the Philip Morris Multifilter 100's (rounded corners) crushing resistance measurements had to be made on different carboards. We then determined whether differences obtained in the measurements could also be perceived subjectively when crushing the packs by hand. The results obtained indicated that the subjective difference could only be perceived when the difference between the absolute values was higher than 10%.



CHK/vep/October 18, 1988
qr388mtchk

2021607523

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : CIGARETTE AND SMOKE ANALYSIS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Senehi F. (SEF), Hofer R. (RHO)

KEYWORDS : Comparative, results, LGC, GB, Romann, Aubort, CH, SASO

DATA FROM THE OFFICIAL UK LABORATORY (LGC), (see Appendix 1)

A list was established showing the tar and smoke nicotine values of five PM brands analysed by LGC during a six-month period in 1988, compared with the results obtained by QA-PME on parallel samples (Survey 27 covering the period January - June 1988). The cigarettes were analysed by the two laboratories according to UK norms (1) (see Table 1, Appendix 1).

For the brands Marlboro KS, Marlboro 100's and Raffles 100's, the UK butt length is 1 mm more than the ISO butt length. For Marlboro Lights KS and Marlboro Lights 100's, the UK butt length is 2 mm more than the ISO butt length.

Comments

1. All our brands complied with the UK legislation.

2. The tar values found by LGC were comparable to those obtained by QA-PME, whereas the smoke nicotine values were higher and the CO values lower.

3. As mentioned in the previous quarterly report, the smoke nicotine results obtained by LGC in Survey 27, months January and February 1988, compared with Survey 26 (see Table 2, Appendix 1), showed a trend towards an increase with all the manufacturers. The situation was back to normal in Survey 27 for month 5 (for all PM brands except Raffles) and for month 6 (for all PM brands) (see Table 3, Appendix 1).

   It has to be mentioned that the present LGC laboratory is not air-conditioned and is subject to seasonal variation in temperature and in % relative humidity which has an effect on the analytical results. The LGC will move to a new smoking laboratory on November 14, 1988.

2021607524

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

4. UK Legislation

We have recently been informed by the representative of LGC that the new brands launched in the United Kingdom should not contain more than 14.3 mg tar (previously 14.5 mg). This tar value which is now the maximum delivery allowed for new brands is based on a sales weighted average determined by LGC for the last 6 months (Survey 27) on all "Low to Middle" and "Middle" brands.

COMPARATIVE RESULTS BETWEEN THE OFFICIAL CANTONAL LABORATORY OF ZURICH (DR ROMANN), THE OFFICIAL CANTONAL LABORATORY OF VAUD (DR AUBORT) AND QA-PME (see Appendix 2)

A list was established showing the tar and smoke nicotine values of seventeen FTR brands analysed by Dr Romann and Dr Aubort, compared with the results obtained by QA-PME on parallel samples (2).

The samples were taken at Onnens on July 20, 1988.

Comments

1. In comparison with the printed figures, all the values obtained by Dr Romann and Dr Aubort complied with the regulations.

2. In comparison with the values obtained by QA-PME, Dr Romann found results which were systematically lower in tar and slightly higher, on average, in smoke nicotine.

	DEVIATIONS IN %				
	July 1988	August 1986	August 1985	October 1984	June 1984
No. of brands analysed	17	37	37	36	35
Tar	-9.3	-10.4	-15.3	-14.9	-8.6
Smoke nicotine	+6.3	-7.4	-5.3	-3.9	-2.5

These lower values in tar and higher values in smoke nicotine may be due to the fact that Dr Romann uses a Filtrona 302 smoking machine (8 ports) and that his laboratory air conditioning varies.

2021607525

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

3. In comparison with the values obtained by QA-PME, Dr Aubort found results which were systematically lower in tar and comparable on average in smoke nicotine.

DEVIATIONS IN %

	July 1988	September 1986	December 1983	May 1982
No. of brands analysed	17	37	6	12
Tar	-7.2	-0.9	-4.4	-1.4
Smoke nicotine	0.0	-1.4	-3.1	-4.3

It has to be noted that:

a) Dr Aubort is also using a Filtrona 302 smoking machine (8 ports).

b) The laboratory of Dr Aubort is not air-conditioned.

c) The deviations in tar are particularly important for low delivery brands (below 8 mg) whereas there are definitely less deviations with brands exceeding 8 mg in tar.

PROJECT S.A.S.O.

A. OBJECTIVE

The smoking laboratory in Riyadh has been installed but before SASO can start working in good conditions, fine tuning will have to be finalized. To be able to provide reliable results, SASO's chemists will need more training and more practice.

B. STATUS

The problems previously encountered with the HVAC system are now resolved. It is now possible to maintain the correct relative humidity and temperature values, as stipulated by ISO.

Because of a lack of knowledge, SASO's chemists are not yet able to keep the laboratory equipment in good condition. This explains why they experience various minor problems delaying the real start of SASO'S testing.

We will support their efforts until they acquire a good level of self-confidence so that they can guarantee credible results.

2021607526

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

C. PLANS

1. Organize practical cigarette smoking runs for SASO's chemists

2. Help SASO keep the equipment in optimal running condition.

PRODUCT REPORTS

Products reports were written for the following new brands:

BRAND	PRINTED VALUES	MANUFACTURER	COUNTRY OF SALE
Cartier Santos LTK/F	Tar/SN = 13/1.1	Rothmans	Belgium
West KS/F	Tar/SN = 15/1.0	Cinta	Belgium
Vogue 100/F	Tar/SN = 8/0.8	Rothmans	France
Vantage KS/F	DPM/SN = 8/0.7	Reynolds	Italy
Capri 100/F	Tar/SN = 9/0.8	B.A.T.	The Netherlands
Vogue 100/F	Tar/SN = 8/0.8	Rothmans	The Netherlands
Prince LS/F	DPM/SN/CO = 18/1.5/14	Swedish Tobacco	Sweden
Prince Lights LS/F	DPM/SN/CO = 13/1.2/11	Swedish Tobacco	Sweden
Lucky Strike Mild LS/F	Tar/SN = 8/0.7	B.A.T.	Switzerland
Winfield LS/F	Tar/SN = 14/1.1	Rothmans	Switzerland
Winfield Extra Light LS/F	Tar/SN = 5/0.5	Rothmans	Switzerland
Berkeley Special KS/F		Gallaher	United Kingdom
Vogue 100/F		Rothmans	United Kingdom

REFERENCES

1. Report by Senehi-F., dd. August 23, 1988
2. Report by Senehi-F., dd. September 21, 1988
3. Report by Hofer-R., dd. October 10, 1988

H. Senehi R. Hofer

2021607527

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

APPENDIX 1

Table 1 : COMPARATIVE RESULTS BETWEEN LGC AND PME (Survey 27)

	Tar [mg/cig]		SN [mg/cig]		CO [mg/cig]	
	LGC	PME	LGC	PME	LGC	PME
Marlboro KS	13.18	12.93	1.02	0.91	12.97	13.88
Marlboro 100's	14.44	14.12	1.15	1.02	14.86	15.75
Raffles 100's	13.51	13.13	1.17	1.05	15.84	15.97
Marlboro Lights KS	8.00	7.52	0.64	0.55	9.28	9.65
Marlboro Lights 100's	8.69	8.57	0.75	0.66	8.71	9.58
Average Survey 27	11.56	11.25	0.95	0.84	12.33	12.97
Average Survey 26	11.59	11.62	0.94	0.84	12.50	13.29
Average Survey 25	11.28	11.36	0.90	0.81	12.18	12.96

Table 2 : BIAS (MANUFACTURER-LGC) FOR SMOKE NICOTINE [MG/CIG]

	Imperial	Gallaher	B.A.T.	Rothmans	PME
Survey 26 (6 months)	+ 0.07	+ 0.07	- 0.05	- 0.04	- 0.10
Survey 27 (months 1 & 2)	+ 0.02	+ 0.03	- 0.11	- 0.10	- 0.13

Table 3 : BIAS (PM-LGC) FOR SMOKE NICOTINE [MG/CIG]

Survey 27 Months:	1	2	3	4	5	6
All brands	- 0.12	- 0.14	- 0.14	- 0.11	- 0.09	- 0.03
All brands except Raffles	- 0.11	- 0.15	- 0.14	- 0.13	- 0.07	- 0.03

2021607528

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

COMPARATIVE RESULTS WITH THE OFFICIAL CANTONAL LABORATORY OF ZURICH (DR. ROMANN), THE OFFICIAL CANTONAL LABORATORY OF VAUD (DR. AUBORT) AND QA-PME

Brands	TAR [mg/cig]					Smoke nicotine [mg/cig]				
	Printed values	Romann	Aubort	QA-PME	CIR 6-7/1988	Printed values	Romann	Aubort	QA-PME	CIR 6-7/1988
Muratti Extra	3	2.8	3.0	3.4	3.3	0.3	0.25	0.26	0.23	0.25
Brunette NO3	3	2.7	2.4	3.1	2.9	0.3	0.23	0.24	0.25	0.25
Muratti Extra 100's	3	3.4	3.4	4.1	3.9	0.3	0.32	0.29	0.32	0.29
Philip Morris Extra	4	3.5	3.6	4.4	4.1	0.4	0.38	0.35	0.37	0.36
Philip Morris Extra 100's	5	4.3	3.7	4.8	4.8	0.4	0.42	0.37	0.41	0.43
Brunette Extra	6	5.3	5.3	5.9	6.5	0.4	0.43	0.38	0.41	0.44
Muratti 2000	6	5.5	6.0	6.3	6.5	0.6	0.50	0.42	0.44	0.47
Marlboro Lights Menthol	7	6.2	6.8	7.0	6.5	0.6	0.59	0.57	0.55	0.53
Merit	8	7.4	6.9	7.8	7.7	0.6	0.61	0.54	0.58	0.56
Muratti KS	9	7.9	8.6	9.1	9.3	0.8	0.78	0.71	0.74	0.76
Marlboro Gold KS	9	8.3	8.2	8.7	9.0	0.7	0.72	0.69	0.65	0.67
Marlboro Gold 100's	10	9.6	9.4	11.1	10.9	0.8	0.91	0.87	0.86	0.86
Brunette Double F.	14	12.9	12.6	13.4	14.3	0.9	0.99	0.90	0.89	0.95
Marlboro KS	15	14.4	15.3	15.6	15.9	1.1	1.13	1.08	1.09	1.10
Brunette Filtre	15	14.9	15.2	16.4	15.7	1.0	0.91	0.83	0.92	0.90
Marlboro 100's	17	15.9	16.4	16.9	17.1	1.3	1.30	1.31	1.19	1.18
Brunette NF	19	16.8	18.3	18.4	17.1	1.2	1.06	1.04	1.05	1.03
General Average	9.00	8.34	8.54	9.20	9.15	0.69	0.68	0.64	0.64	0.65

2021607529

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : TOBACCO MONITORING

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Orsan-G. (GUO)

KEYWORDS : tobacco, monitoring, reconstituted, tla, tqa, expanded, degas, millet, uzorak, weasel, trial, burley, fluecured, br, ks, humectant, comparison, us, audit.

TOBACCO LOT ANALYSIS (TLA)

Assistance to the PM-EEMA Leaf Department

At the request of PM-EEMA Leaf Department, three (3) samples of reconstituted tobacco ex Podr Slatina, Yugoslavia, were submitted to TLA analyses. The three (3) samples coded UZORAK I, II and III were prepared with different sorbitol levels, respectively 2,5%, 5.0% and 7,5%. The results obtained showed approx. 45% lower sorbitol content for all samples. When compared with other samples previously received from Podr-Slatina, we noticed that the DEG content was decreased from approx. 5% down to 0,1-0,2%. The complete results were sent to the Leaf Department concerned.

Reconstituted tobacco ex-USA : Humectant level in sheet

Further to the comparative test carried out to check methodology used by the two labs (R&D + Park 500), a second comparative test was organized to explain the difference found between US and Europe. For this purpose, 6 samples of reconstituted tobacco were prepared and given to the R&D Analytical Laboratory, which is in charge of this second comparative test.

Assistance to the PM-EEC Leaf Department

At the request of the PM-EEC Leaf Department, 90 samples of Brazilian tobacco were submitted to a TLA analysis. These 90 lots consisted of flue-cured, Burley tobacco and expanded stems. Top priority was given to this project by the PM-EEC Leaf Department and therefore all other TLA analyses were postponed. All the results were available to the requester by the end of September, according to the timing proposed.

2021607530

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Assistance to other R&D Services

In the context of Project WEASEL and TRIAL, respectively four (4) and five (5) samples of expanded tobacco taken during trial runs were submitted to TLA analysis at the request of the Process Development group. The results of the analyses were conveyed to the department concerned.

Cigarettes were manufactured using Accuray weight control system for Projects DEGAS and MILLET. For Project DEGAS, 30 trays of cigarettes were produced (approx. 126'000 cig.) and for Project MILLET 2 trays (approx. 8'600 cig.). All these cigarettes were given to the Process Development group in charge of both projects.

Equipment

In order to be able to produce cigarettes at full speed (2'600 cig/min) using Accuray, several adjustments had to be made on the TLA MK8 maker. Assistance was requested from the FTR Production and Electronic departments.

TOBACCO QUALITY AUDIT (TQA)

Check-up of the TLA machinery/procedures

During week 38, a representative of the TQA Facility in Richmond visited the PME-TQA Facility. A complete check of the different pieces of equipment was performed and only a few minor modifications had to be made. From the procedure point of view, no problem was discovered. Basically, the facilities in Richmond and in Onnens can be considered as equivalent.
In order to compare results of strip sieves, stem sieves and OV's, five lots of domestic flue-cured tobacco were selected at FTR warehouses. The sampled test specimens were analysed using the TQA process and the results obtained were compared. This comparison showed that the 50 test specimens analysed at Onnens were within one (1) standard deviation from the averages found in Richmond on the same lots. Other topics were discussed (reporting, graphical representation of data for the tobacco processors) in order to standardize as much as possible between the two facilities.

2021607531

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Audit of tobacco

The audit program has now started. The first country to be audited is Korea. Flue-cured and Burley tobacco of the 87 crop are currently under analysis. Nineteen (19) different samples have been selected by the PME Leaf department and sixteen (16) have already been processed. A report of the audit results will be issued by mid/end of October. The audited suppliers are : DIBRELL, UNIVERSAL LEAF, TRANSCO, KULENKAMPF and MONK. We will then audit the Brazilian 88 crop which consists of thirty-four (34) flue-cured and five (5) Burley samples.

AIR CONDITIONING OF TM FACILITY

Several problems and delays were encountered in the final stage of the installation and therefore the start-up has been postponed to mid October.

GUO/vep/October 10, 1988
qr388tmguo

2021607532

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : ANALYTICAL SERVICES

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Turpin-D. (DAT)

KEYWORDS : tipping, seam, glue, filter, gelatin, flavor, charcoal, menthol, licorice, humectant

---

1. INCOMING INSPECTION FOR FTR

The objective of incoming inspection is to ensure the constant quality of ingredients, filter additives and glues used by FTR as well as conformity of each delivery to PM specifications. During the reporting period, 108 deliveries were checked by Analytical Services. They were all released for production, except one :

- LESSO 1739/7 packaging glue. Incoming Inspection sheet 1997. The shipment was replaced by the supplier, due to viscosity appreciably lower than that of former deliveries.

Fat content determinations routinely made on cocoa peels revealed that the chocolate industry tends to extract less and less fat from raw cocoa. The high fat content of Suchard cocoa peels caused serious working problems at the cochise production plant in Onnens. Investigations to evaluate possible solutions will be made with the collaboration of suppliers.

2. QUALIFICATION TRIALS

A new product is only accepted if it has successfully passed the following tests and trials :

- Analytical evaluation to examine the conformity of the product to PM specifications and the German legislation.
- Production of cigarettes and subjective evaluation by Panel B and Panel A.
- Machinability trials.
- Industrial trials.

2021607533

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2.1 QUALIFICATION OF ALTERNATIVE SUPPLIERS

The following trials were initiated to qualify alternative suppliers of ingredients, filter additives and glues.

- Invert sugar from SUOMEN SOKERI - Qualification was finalized further to the success of industrial trials.

- Physical mixture of 50% MPEG 550 and 50% MPEG 750 from BP. Industrial trials are planned at INB and FTR.

- Synthetic menthol from TAKASAGO-Japan. Analytical evaluation is under way.

- Block licorice from SISTAS. Samples were requested for analytical evaluation.

- Block licorice 418 from EVD. Analytical evaluation was not successful. Trials are currently being made by EVD to produce a block licorice complying with our requirements.

- PVA seam glue from NATIONAL STARCH. CIELOK 303-1772 successfully passed the analytical and subjective evaluations. An industrial trial is planned.

- Propylene glycol. Special efforts are being made to qualify suppliers alternative to DOW CHEMICAL. Analytical evaluation of samples from HUELS, ERDOELCHEMIE and ARCO-France was successful. Trials for subjective evaluation are planned.

- Natural menthol "Glacier Brand" from China. Analytical evaluation is under way.

- Triacetin Estol 1579 from UNICHEMA. Trials were initiated to qualify this triacetin for the production of Raffles at PM-UK. Analytical evaluation was successful. Subjective evaluation is planned during the next three months.

- Powder licorice from FERTILIZERS & CHEMICALS. Due to taste variations of cigarettes produced at PMG with the first industrial shipment, trials were resumed to confirm the qualification. Subjective evaluation was not conclusive and Panel A recommended repeating the trials. An industrial trial with subjective evaluations by Panels A and D is planned during the next three months.

- Cochise from ENGEL. Subjective evaluations by Panel B and Panel A were not successful. Trials were abandoned.

2021607534

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2.2 QUALIFICATION OF REPLACEMENT PRODUCTS

The possibilities of solving some technical problems are currently being investigated with the following products :

- LESSO 1520 (formerly called LESSO 1516GX2) tipping glue from LAESSER. The trials are aimed at decreasing the pressure on the application rolls and getting easier regulation of the ventilation. An industrial trial is under way at FTR and will be finalized at the end of November. Results are quite satisfactory. Local confirmation trials were initiated by affiliates.

- LESSO 2059 hot melt filter glue from LAESSER. The trials were aimed at solving gluing problems during storage. The expected improvement was obtained during an industrial trial at INB. Qualification was finalized.

- SICHOPLAST A 4092 tipping glue from HENKEL. This glue was specially developed for high speed machines and could be a possible alternative to LESSO 1520 in the future. Analytical evaluation was successful. Subjective evaluation is planned for next year.

- PICA activated charcoal RC-328. The expected improvements in machinability and quality of filters were obtained during the first trials due to a finer granulometry than that of the currently used CFT 136-140. Subjective evaluation of prototypes containing different amounts of charcoal is under way.

- LESSOFLEX B2G gelatin seam glue. The trials to investigate the possible use of gelatin as natural cigarette seam glue are for the time being delayed, due to production constraints at PMG-B. They will be resumed in the near future after setting up a program in collaboration with PMG and establishing a protocol with R&D Richmond to determine pyrolytic components from gelatin.

3. ASSISTANCE TO AFFILIATES

FAMA-AC solution

Trials were made to solve problems due to precipitation during storage and blocking of filters during the transfer of the AC solution from the tank to the primary. Flavor specialists in Richmond are currently investigating our proposals about possible modifications of the recipe.

2021607535

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Invert sugar from BORGWALDT delivered to PMG-M in July

Samples from three doubtful drums were examined and found to be not acceptable from the analytical point of view. The suspected drums were replaced by the supplier.

Flavors delivered to PMH

Due to slight modifications of flavors 153 and 83B, investigations and analyses were made to confirm their acceptability.

Humectant analyses. Interlab test between PMG and PME-QA

Implementation at PMG-M of the new method, based on chromatography with wide-bore column, is planned for November.

Menthol analyses in cigarettes
Interlab test between PMH and PME-QA

Further to the results of the interlab test, information about the method used by PME-QA was sent to PMH. The interlab test will be resumed after implementation of the PME-QA method in PMH laboratories.

Foil mentholating for PMG-B

Investigations are currently being made to solve working problems for the production of Marlboro Menthol on the GD-X2 packing machine.

Triacetin from EASTMAN delivered to PMH

Acetic acid content was determined on a sample of triacetin delivered to PMH in July. The results complied with specifications.

4. ASSISTANCE TO HEADQUARTERS AND LICENSEES

Mentholation trials for ATO-Finland

Bobbins were mentholated for the production of Marlboro Menthol in ATO with the aim of a subjective evaluation by a consumer test.

Investigations are under way to find a suitable alu-foil for the production of Belmont by foil mentholating.

2021607536

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Chloride in tobacco

Chloride content was determined in tobacco samples of various origins.

Glues for SITABAC

Investigations and analyses were made to check the acceptability of glues alternative to those formerly supplied by CACIG.

Homogenized tobacco ex Podr Slatina, Yugoslavia

Humectant and sorbitol analyses revealed the presence of DEG traces. Trials are under way to produce a foil completely free of DEG before using it for the production of PM brands in Yugoslavia.

Casing solution for ROY. Spisska Bela-CSSR

Humectant analyses made on a sample of this solution confirmed the absence of DEG.

5. ASSISTANCE TO OTHER GROUPS

Material Testing

Finish oil content and single denier were routinely determined on samples of tow for incoming inspection.

Finish oil and titanium dioxide content was determined in tow samples from COURTAULDS for analytical evaluation.

Additive content of some cigarette papers is being routinely determined to evaluate the effect on paper combustion speed.

Manufacturing Services

Base flavor reference samples were examined for future incoming inspection.

A sample of the block licorice used at PM-Richmond was examined for analytical evaluation.

Two samples of flavors were examined to set specifications.

Usage of glues was updated. Investigations to set product specifications are currently being made.

2021607537

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Product Development

Menthol content was determined in cigarettes for projects RENE, ALAIN and PLANE.

Flash point and boiling point were determined on a flavor sample for project LIBERTY.

Product Research

Analyses of humectants, water, ethanol and sugars were made for the development of an infraalyzer method for the incoming inspection of liquid flavors.

Humectant analyses on tobacco samples were made for project ORDER.

Microbiology

Determinations of sugar, humectant, calcium, magnesium, potassium and sodium content were made on nine various tobacco extracts for project TITANIA.

Quality Audit

Humectant analyses were made on samples of competitors' brands of various origins.

Menthol content was determined in PM and competitors' brands.

Determinations of conductance were made on water samples for project SASO.

Plasticizer analyses and investigations were made on the filters of the competitive Rivage brand from Saudi Arabia.

Process Development

Humectant analyses on tobacco samples were made for projects PISSARRO, TOYO, TURNER, PENNY, ETNA-TABAC/CH, WEASEL and COURBET.

Tobacco Quality Audit

An interlaboratory test is currently under way between PME-QA and Park 500 for the determination of humectant content in RL.

Humectant and silicium dioxyde analyses were routinely made on samples from various tobacco batches.

2021607538

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

6. METHODS

The following method was issued :

- PME Method No. 64

  Enzymatic determination of acetate in cigarette papers.

7. SPECIAL PROBLEMS

Formation of deposit in the boiler of ETNA plant Onnens

The deposit was identified as a bitumen residue of combustion.

Equipment for FTR Casing Kitchen

Densities of various powder ingredients were determined for the evaluation of possible automatic feeding equipment.

Standardization of menthol solutions

Four different menthol solutions are currently used for foil mentholating and the production of the various mentholated brands in Europe. These solutions differ only in the origin of the menthol they contain : either natural, mixtures of natural and synthetic, or synthetic with mint oils. Standardization trials were initiated to solve some problems of supplies, workload and quality.

Subjective evaluation of North Pole standard and prototypes is planned for October. After that, the possibility of achieving standardization will be evaluated.

D. Turpin

DAT/vep/October 6, 1988
qr388asdat

2021607539

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : VISUAL QUALITY AUDIT

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Jacquet-R. (RFJ), Morelli-M. (MMO)

KEYWORDS : market, survey, handbook, standards

ASSISTANCE TO HUNGARY (RFJ)

A visit was paid to the Eger Factory in order to solve quality problems and to give technical assistance related to the launching of the L & M Brand.

Suggestions for technical improvements were made to AOD. (1)

ASSISTANCE TO SNTA, GOURAYA ALI, ALGIERS

A visit was paid to the SNTA factory to train two new employees of the quality control department and make them more knowledgeable on PME quality standards. The opportunity was also taken to make the technical personnel more concerned about quality. (2)

HANDBOOK FOR VISUAL QUALITY AUDIT OF FINISHED PRODUCTS

Objective

Develop a revised Handbook for Quality of Finished Products, jointly with PM-USA.

Status on packaging

A set of new packaging defect definitions has been developed. A series of tests with the objective of comparing the current PME definitions with the revised definitions was conducted. The tests showed that only two defects contributed to the larger part of the difference in total percentage defective between the two systems. The results obtained with PME current standards were well in line with those from monthly audits. This indicated that the sample used in the test was unbiased.

2021607540

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Status on cigarettes

A draft of new cigarette defect definitions has been prepared. The test to compare current definitions with new definitions will be conducted as soon as the packaging part has been completed.

Plans

- Establish the final draft between PM-USA and PME-QA (end October)
- Obtain technical approval by PME-QA and PM-USA QA (mid-November).

REFERENCES

(1) Report by Jacquet-R. dd. September 20, 1988

(2) Report by Jacquet-R. dd. October 13, 1988

F. Jacquet M Morelli

qr388vqarfj

2021607541

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : SUBJECTIVE CIGARETTE EVALUATION

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Monnin-E. (EMO)

KEYWORDS : panel, discriminative, method

DISCRIMINATIVE PANEL

Panel B

The R&D Panel B organized 19 tests during July, August and September with the DDD-method (PME-method No 720). Fifteen tests were accepted (no difference found between the product under evaluation and the control cigarettes), four were not accepted.

In order of importance, the tests were requested by :

	% of tests
Manufacturing Services	63
Analytical Services	16
Panel Testing	11
Material Testing	5
Analytical Research	5

Special project : Panel B with visually different cigarettes

The basic principle of the DDD-method is that the cigarettes to be tested are physically identical. In August, the opportunity was taken to carry out a test with visually different products (1). The idea was to see if the defects of the cigarettes would influence the result of the test. The answer was "no". By analysing the individual results of the panelists it was shown that they smoked "objectively" (i.e. without taking the defect into account). This is a professional attitude that is worth noting.

2021607542

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Panel C

A report was established on the 1981 Panel C with a view to retaining positive elements from this experience that could be useful for future use (2). The general objective is to create a daily production control procedure. Practically the idea is to set up two panels : an alarm panel and a control panel to verify if a critical situation really exists. Besides this, prevention - i.e. the control of all material used for the making of cigarettes before production - has a prominent part to play.

Improvement of Panel B

In order to increase the efficiency and reliability of Panel B a study is in progress. In the same way, comments on the final report of ASAP were written (3). The purpose was to see if certain proposals could be adapted to R&D Panel B.

Note

ASAP is a German society specializing in sensory analysis of food. PM Munich requested it to assess the structure and the techniques used in the German panels.

METHOD

Following a request made during the May 88 QA Managers' Meeting, PME Method No 27B was reviewed with the objective of clarifying how cigarettes should be prepared when influence of materials on the taste of cigarettes has to be subjectively assessed (4).

REFERENCES

1. Report Panel B with visually different cigarettes
   from Monnin E., September 09, 1988

2. Report production control panel (1981)
   from Benzaken E., August 08, 1988

3. Comments on "Final report of ASAP"
   from Benzaken E., August 15, 1988

4. Method No 27B reviewed (DRAFT)
   from Monnin E., September, 1988

E. Monnin

2021607543

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : INFESTATION CONTROL

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Freymond-J.M. (JMF)

KEYWORDS : infestation, control, dianex, ftr, fogging, lot, program, methoprene, pheromone, monitoring

---

INFESTATION CONTROL PROGRAM

Objective

To implement the new PM Infestation Control Program in all PME affiliate and licensee factories and warehouses.

Status

A PME standard presentation was prepared both in French and in English.

A presentation of the new program was given to FTR management on September 20, 1988.

Plans

FTR : to implement the application of DIANEX spot fogging by the end of October 1988.

To implement the new program in PMG, PM-UK, PMB and SNTA (Algeria) through presentations and practical demonstrations.

INFESTATION CONTROL IN FTR

Objective

Ensure that the new program, including DIANEX applications, is properly implemented at FTR.

2021607544

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Status

DIANEX general fogging applications were made monthly in all facilities of FTR factory.

The new program was successfully implemented. Several sources of infestation (cigarette beetle) were found and eliminated on the basis of the new concept.

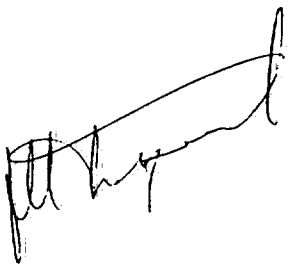
Onnens : A significant increase of tobacco moth was noticed in several sections of the warehouses.
Intense monitoring with mobile pheromone traps was made in the most critical areas. Infested Oriental tobacco lots were found to be probable sources of infestation. Recommendations were made to FTR to take appropriate and feasible actions.

Plans

Implement DIANEX spot fogging every two months and general fogging every three months in FTR factory as from October 1988. Periodically collect tobacco dust samples in the factory in order to measure methoprene (active ingredient) and for residue analysis.

Continue to follow the infestation situation and the search of possible insect harborages until the end of 1988.

Continue the monitoring of tobacco moth with mobile pheromone traps in Onnens warehouses.



JMF/vep/October 7, 1988
qr388icjmf

2021607545

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : QUALITY ASSURANCE + TECHNICAL SERVICES

SUBJECT TITLE : QUALITY ENGINEERING

PERIOD COVERED : JULY - SEPTEMBER 88

WRITTEN BY : Henry-P. (HEP), Morelli-M. (MMO)

KEYWORDS : machinery, qualification, kiss, rod, scanner, visual, quality, audit, PME, methods, focke, protos, kdf3.

MACHINERY QUALIFICATION PROCEDURE

Objective

Jointly with local QA's, establish the sampling protocoles for any secondary machinery which has to be qualified within PME. Three machines will be qualified in 1988.

Status

KDF3 : Qualification will take place in Berlin by December 88
PROTOS 100 : Qualification will take place in Berlin by October 88
FOCKE 700 : Qualification will take place in BoZ by December 88

PROJECT KISS

Objective

Establish a complete Quality Program for a new manufacturing facility.

Status

Several assumptions were made in order to initiate the project. The QA organisation was defined as well as the technical background of the personnel, the equipment necessary and the premises required.

Plan

The package will now stay on stand-by at its draft stage until we receive more information from PM-EEMA.

2021607546

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

HANDBOOK FOR VISUAL QUALITY AUDIT OF FINISHED PRODUCTS

The project status is reported in the PRODUCT AUDIT GROUP part of this quarterly report.

ROD SCANNER EVALUATION

Objective

Evaluate the efficiency of "on-line" Rod Scanners available on the market i.e. CIM from Accu-Ray and ORIS from Hauni.

Status

The testing of CIM on MK9 has been completed in Brussels and in FTR although the test continues in Berlin with ORIS and PROTOS.

Plan

The final report of CIM Rod Scanner on MK9 is expected to be completed by October 88.

PME METHODS MANUAL

Several PME methods are being developed within the Quality Engineering group :

- Determination of Filter Firmness with FILTRONA DHT
- Sampling Procedure for Strip Tobaccos.
- Standard Format for PME Methods.

HEP/vep/September 30, 1988
qr388qehep

2021607547

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

MANUFACT. SERVICES

2021607548

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : MANUFACTURING SERVICES GROUP

SUBJECT TITLE : INGREDIENTS, CASINGS & FLAVORS

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Schwarb-A. (ADS)

KEYWORDS : ingredient, casing, flavor, prototype, trial, reformulation, evaluation

---

1. REFORMULATION

1.1 Project AGATE No 5033 (Refs. 1 to 4)

Reformulated base flavor FELTON 479139 is accepted when used at a reduced quantity of 15%, compared to the current base flavor 783 (PME Code 10.3880).

Specifications were changed accordingly. FTR Purchasing Department was informed about this modification.

FELTON Worldwide Inc. (USA) and FELTON Company France (F) were informed of the successful conclusion of our qualification procedure.

2. INGREDIENTS

2.1 Usage catalogues (Refs. 5 and 6)

Updated versions of "Usage of Ingredients" and "Usage of Filter Additives" were issued on July 18, 1988.

These documents were discussed with PMG and PMH during visits paid by the undersigned in August 1988.

2021607549

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

REFERENCES

1) Report from Schwarb-A. to Krauss-J., "Project 5033 - AGATE - Trial No. 4", September 26, 1988

2) Profs note from Schwarb-A. to Suter-R. and Hadorn-J.B., "Base Flavor Modification", September 26, 1988

3) Memo from Schwarb-A. to 'Cuisine des Sauces FTR', "PME Code: 10.3870, Flavor 479139", September 26, 1988

4) Fax from Schwarb-A. to Micciche-P. (FELTON USA) and Boussion-M. (FELTON FRANCE), September 30, 1988.

5) Memo from Schwarb-A., "Usage of Filter Additives", July 18, 1988

6) Memo from Schwarb-A., "Usage of Ingredients", July 18, 1988

A. Schwarb

A. Schwarb

ADS/cav/October 5, 1988
qr388icfads

2021607550

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

RESEARCH AND DEVELOPMENT, NEUCHATEL - QUARTERLY REPORT

DIVISION : MANUFACTURING SERVICES GROUP

SUBJECT TITLE : FOAM BINDING

PERIOD COVERED : APRIL 1 - JULY 25, 1988

WRITTEN BY : Schwarb-A. (ADS)

KEYWORDS : foam, binding, cigarette, trial, improvement, firmness, cbipektin, evaluation

---

STATUS

Following trial No. 22 of April 12, 1988, and evaluation of prototype cigarettes by several experts (PME Leaf, PM-USA Leaf, PM-USA Flavorists), it is proposed to stop this project.

Foam binding will be included in the new technology list from R&D New Product Development.

REFERENCES

1) Reports "Project No. 5013 - FOAM BINDING Trial No. 22 of April 12" by Schwarb-A., April 21, 1988

2) Report "FOAM BINDING PROJECT" by Krauss-J. and Schwarb-A., July 21, 1988

3) Memo "FOAM BINDING" from Krauss-J. to Bourlas-M., July 21, 1988

A. Schwarb

qr388fbads

2021607551

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : MANUFACTURING SERVICES GROUP

SUBJECT TITLE : INGREDIENT AND MATERIAL EVALUATION

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Flury-C. (CAF)

KEYWORDS : material,trial,test,evolution,meeting, filtration,filter,plug,wrap,cigarette,paper, tipping

---

OBJECTIVE

Evaluate alternative direct materials and ingredients for filters and cigarettes in order to optimize product quality and cost.

MATERIAL TRIALS: CONCEPT 1988 AND ACHIEVEMENTS

A summary of the 1988 concept and the results thus far is attached.

IMPORTANT ACHIEVEMENTS 3rd QUARTER

Tow 3.0/35'000Y from Courtaulds is qualified on Marlboro. Trials were carried out on the Pan-European Marlboro produced under license in Italy, with filters produced at Intertaba SpA. This trial series was initiated in April, 1986, and thus lasted more than two years.

The same tow 3.0/35'000Y was qualified on Raffles, at the beginning of this year. Two further tow types from Courtaulds, 2.1/32'000Y and 2.5/30'000Y, were qualified in February, 1988. All three tows are used by Intertaba SpA.

Filter seam glue Lessotherm 2059 is a glue which is resistant to triacetine. It therefore allows long-term storage of filters and will mainly be used by production centers manufacturing filters for sale to third parties.

2021607552

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

End 1985, FTR had started trials to find an improved glue for filter tip attachment. The new glue was to have good machinability properties (no soiling) on high-speed makers, and it was to allow reduction of the pressure to the glue rollers. Following positive smoke and taste results, glue Lesso 1520 was qualified in August, 1988. It answers all requirements: More than 3000 kg of Lesso 1520 were successfully used at FTR, on Mark 9 and Protos. The cigarette ventilation could be regulated more efficiently.

This qualification is a contribution to project FITIA ("Filter Tip Attachment"), the top project of 1988.

Lesso 1520 was recommended to all production centers, as a replacement for Lesso 1516G. Meanwhile, local confirmation tests have started at PMH and PMG.

IMPORTANT ONGOING TRIALS

Activated charcoal RC 328 (small granulometry), from Pica, is the material used by PM-USA. First trials with this material were run at FTR, during the Summer period. The results obtained so far are very promising:

a) 15-20% less charcoal were required, to achieve the same RTD as with the present quality. At the same time, the CV of the RTD and the standard deviation of the diameter were decreased by about 40%.

b) The smoke deliveries of the test cigarettes (BRD Brunette Double Filtre; MPH Multifilter 100s; MAK M. Ambassador King Size) were comparable to the standard, and the subjective evaluation made by Panel B R&D testifies "no difference" between test and standard.

Taste evaluation by Panel A is pending.

It is recalled that the manufacture of black semi filters up to the specified RTD appears to be rather problematic for certain filters. This fact, and in view of using new generation machines (KDFII/AF2) in the future, leads to objective number 3.2 of the Material Trial Concept 1988, calling for the "development of a suitable black tow..." with the two tow suppliers, Rhodia and Eastman. In that respect, little progress was possible up to now, for different reasons.

The positive results, obtained unexpectedly with charcoal RC 328, induced us to push this project ahead rapidly. Taking this into account, plus the fact that an improvement of black tow is problematic, the trials with black tow have been temporarily suspended.

2021607553

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

As the production volume of filters using crêpe paper continues to increase (production center Intertaba SpA), top priority was given to the qualification of an alternative source to the only qualified supplier, Papierfabrik Balsthal. Despite thorough market investigation, only one possible alternative source could be found: Papierfabrik Netstal, also a Swiss firm. The previous Finnish supplier, Mannta, who claimed to be interested in this business, has withdrawn.

Considerable efforts are being made to carry on project FITIA ("Filter Tip Attachment"). For details see Attachment, page 3.

As the trial programme to develop and qualify natural glues for cigarette seam was interrupted, it appeared judicious to qualify a second supplier of PVA glue.

Therefore, a promising trial, suspended in January, 1988, with PVA glue "Cielok 303-1772" (nozzle application), from National Starch, was re-activated at FTR.

For complete list of ongoing trials, and details of status, see Material Evolution Status Report.

C. Flury

CAF/September 30,, 1988
qr388imecaf

Attachment: Material trials:
Concept 1988 and Achievements To-date

2021607554

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

Material Trials: Concept 1988 and Achievements — Status: 30.09.1988

* = Objectives entered after November, 1987.
TRIAL START/END = Planned/effective start and/or duration of trial series.
RESULT A = Approved/achieved R = Refused/suspended/abandoned.

		TRIAL START	TRIAL END	RESULT	REMARKS
1. TOBACCO INGREDIANTS:					
1.1	Alternative source for cocoa peel.	11/87	../89		
1.2 *	Alternative sources (to DOW Chemicals) for Propylene Glycol and for	08/88	../89		
	Glycerine.	../88	../89		
1.3 *	Alternative source for block licorice.	08/88	../89		
2. FILTER ADDITIVES:					
	Plasticizer on black semi filters:				
2.1	Introduce Methoxy-Polyethylene-Glycol MPEG 550 + MPEG 750 (physical mixture suppliers).	02/88	08/88	A	Schäner & Schläpfer + BP
2.2	Standard recipes (triacetine addition) and application rates, between FTR and INB.	02/88	07/88	A	Std recipe; 8% application
2.3	Qualify at least one alternative source.	07/88	07/88	A	2 sources f. both FTR+INB
2.4 *	Qualify activated charcoal with small granulometry.	02/88	../89		
3. TOWS:					
3.1	Qualify Courtaulds tows				
	- Raffles 100s and Raffles KS 3.0/35Y	05/85	01/88	A	
	- Diana Specially Mild (Italy) 2.1/32Y	07/87	02/88	A	
	- Diana King Size (Italy) 2.5/30Y	10/87	02/88	A	
	- Marlboro Italy (Pan-European) 3.0/35Y	04/86	08/88	A	
	- Marlboro Sweden (FTR) 2.5/30Y	03/88	11/88		
	- Visa (FTR) 2.1/42Y	03/88	11/88		
3.2	Develop suitable black tow for new generation machines (KDF II/AF2), with Eastman and Rhodia.	11/87	--		Trial suspended; awaiting results new charcoal.
3.3	Alternative source (to BALSTHAL) for crêpe paper.	12/87	../89		
3.4	Qualify Ectona, Great Britain (3.0/35Y; mgt.request).	01/87	../89		
4. PLUG WRAPS:					
4.1	Third supplier f. medium-porous (Glatz or Wattens).	01/88	08/88	A	Glatz: PMG; Wattens: FTR
4.2	Fine-tuning high-porous plug wraps:				
	- Interchangeability reg. porosity/ventilation.	05/88	--		Pending; see project FITIA
	- Good machinability - adapted paper smoothness.	08/88	--		Pending; see project FITIA
	- Improve splices of Dexter paper.	01/88	09/88	A	Type "Spider 10 mm PP"
4.3 *	Replacement for Mauduit's PPW 140.	01/88	../89		
5. CIGARETTE PAPERS:					
5.1	Alternative source (Sch & H) for Raffles.	--	--		Pending; product changes.
5.2	Qualify Bolloré (Marlboro paper; mgt. decision)	08/87	05/88	R	Not OK; trials stopped.
5.4 *	Alternative source (to Mauduit) for PM Ultra.	04/88	../89		

2021607555

Form.685

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

6. TIPPING PAPERS:

6.1	Alternative source (to Interbobbin) for Raffles.	06/84	../89		Trials Mundet till 05/88.
6.2	Micro-laser perforation 5M 0.5.3.5 Benkert (PMU).	03/87	../88		See also FITIA (point 8).
6.3	White base paper from Tann.	10/87	../88		
6.4	Qualify Miquel y Costas (EP cork tipping).	03/88	../89		
6.5 *	Laser-spray tippings from Malaucène (mgt request).	04/88	/89		
6.6 *	Baumgartner PSP filters (gluing problems).	02/88	/88		
6.7 *	Equivalence micro-laser perfor. Malaucène + Benkert.	05/88	../88		

7. GLUES:

7.1	Improve glue testing + expertise; recommend better glue application units/systems.	01/88	../88		
7.2	Alternative source for tipping glue.	09/86	05/88	A	Türmer CF 510
7.3	Alternative source for filter seam glue.	../88	../89		
7.4	Natural glues for the cigarette seam:				
	- Gelatine	12/86	05/88	R	Trials suspended
	- Liquid starch	06/87	04/88	R	Trials suspended
7.5 *	Alternative source for cigarette seam glue.	06/88	../89		

2021607556

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

8. PROJECT FITIA (Filter Tip Attachment):

Improve gluing of tippings to filter plug and tobacco rod; good machinability (envelope, gluing) at speeds up to 8000 cig./min.

8.1	Better know-how reg. tippings and glues	01/88	03/88	A	Discussions suppliers
8.2	Set up evaluation procedure for industrial trials	01/88	03/88	A	) Accepted by prod.
8.3	Set up Test Plan	01/88	03/88	A	) centers in April.
	Step 1: 1 bobb. Approval smoke deliveries and taste.		)		a = 1st trial;
	Step 2: 15 bobb. Prelim. machine trial.		)		b, c, etc. = subsequent
	Step 3: 50 bobb. Ind. trial, acc. procedure (point 8.2)		)		repetitions

General Remarks:

Benkert Blancophan 390 run well on the machines sofar, but no industrial trial was done yet.
It is approved LMBG (but the sticking of the gold lines must be improved in general).
Taste approvals: Panels B OK on PMU03, MER13, MAB01/MAH01 (Pending on MLX12)
Panel A OK on PMU03 (includes new perforation L5R/400)

Malaucène LS 944 BNG has tendancy to low breaking resistance (still being evaluated).
Its purchase price is higher than the "old" quality (944 BNG). Quotations are exptected.
It is approved LMBG.
Taste approvals: Panels B OK on PMT02, MAC02/MAT01

Evolution of tests:

STEP	TEST MATERIAL	ENVIRONMENT	AFFIL.	BRAND	START	END	STATUS/RESULT/REMARKS
1 a	Benkert Blancophan 390	FP S&H 9500	PMG-B	MLX12	04/88	08/88	Doubtful B-Panels PMG-M + R&D.
1 b	Repetition of 1st trial			"	08/88		B-Panels; No Panel A.
1	Benkert Blancophan 390	FP 24-93	FTR	MER13	05/88	08/88	OK smoke/incoming/B-Panel R&D.
2	15 bobb., various machines	FP 24-93	"	"	09/88	09/88	OK machinability.
3	50 bobb.; FITIA procedure	FP S&H 9500	"	"	10/88		Machinability?
1	Benkert Blancophan 390	FP S&H 8250+ L5R/400 perf.)	)PMG-M	PMU03	05/88	09/88	OK smoke/incoming/Panels B + A.
3	100 bobb.; FITIA procedure;		"	"	10/88		Ventilation + machinability?
1	Benkert Blancophan 36A	PSP Bolloré	FTR	MAB01	07/88	07/88	Continued
2 a	15 bobb. Fj 8041, Bla.36A	PSP S&H150/9500	"	"	08/88	09/88	Continued; see also MAC02
2 b	15 bobb. 3/60 Bla.390	PSP S&H 9500	"	"	10/88		Effect new filter/perfor.?
-	TP Bla.36A, perf.3/60	" " "	"	"	11/88		Provisionally adopted constr.
1 a1	Malaucène LS 944 BNG	PSP+Bolloré	FTR	MAC02	07/88	08/88	) FP Dexter eliminated on PSP;
1 a2	"	PSP+diff. FPs	"	"	07/88	08/88	) TP perforation to be adapted
1 b	TP LS944 perf.4M0.15.4.5	PSP S&H 9500	"	"	09/88	09/88	OK filter S&H 9500; low vent.
1 c	" " " 4M0.20.7.5	" " "	"	"	09/88	09/88	Increased ventilation
-	" " " 4M0.22.7.5	" " "	"	"	10/88		Provisionally adopted constr.
1	Malaucène LS 944 BNG	S&H 9500	PMG-B	PMT02	06/88	07/88	OK smoke/3 B-Panels.
2	15 bobb.; Protos/Max 80	"	"	"	07/88	08/88	OK withg/without Schleifheiz.
3	50 bobb.; FITIA Procedure	"	"	"	09/88		Machinability?

R & D Manufacturing Services Group, Neuchâtel (Switzerland)
(mev-concon)

2021607557

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION	:	MANUFACTURING SERVICES GROUP
SUBJECT TITLE	:	PRODUCT MODIFICATIONS (LICENSEES)
PERIOD COVERED	:	JULY - SEPTEMBER 1988
WRITTEN BY	:	Kopp-A.-M. (AMK)
KEYWORDS	:	Product, Specifications, Monitoring, Quality, Improvement, Implementation, Modifications, authorized, planned.

OBJECTIVES

To monitor product quality and implement cigarette construction modifications when necessary in order to ensure that the quality objectives of the products are met.

PRODUCT MONITORING

Of the 61 brands monitored, 60 showed smoke deliveries within objectives. MLF Cameroon had still smoke deliveries which are on the low side : change to less porous cigarette paper posponed to next year due to reduced production volume.

- Finland : All products are within objectives. The last results found by the Official Finnish State Laboratory were lower than the values printed on the packs. However, an alternative cigarette paper is still being searched in case CO values increase again.

- Africa : Except Cameroon, all products are now within objectives ; In order to adjust deliveries MLF Senegal started to use a less porous tipping paper in June and MLK Algeria in July.

- Eastern European Countries : A tar objective of 17.0 mg/cig. has been specified for Marlboro non-diluted cigarettes, except in Yugoslavia (18.0 mg/cig.) due to the equipment. With the introduction of a high-porous cigarette paper, intensive quality control and factory improvements, all products are now within objectives.

  An second and alternative high-porous cigarette paper is now qualified for all non-diluted Marlboro cigarettes.

- Corsica : The use of a less porous tipping paper for the KS cigarette started in June.

2021607558

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

MODIFICATION OF PRODUCTS

- MLK and MHC (100's) Greece: Diluted versions were introduced in May. These products are still followed by New Product Development.

- Diana cigarettes Italy have been re-developed - Project "HURNI" (smoke deliveries of Full Flavor cigarettes brought down to the objectives and blend standardization of Full Flavor (DIK) and Mild (DIS) cigarettes). The introduction is planned for the end of October 1988.

- Mercedes cigarette Italy is being re-developed - Project "CORNU" (blend standardization).

- The following brands produced by Jubilé (Belgium) were re-developed. The cigarette length has been increased from 70 to 74 mm : Visa Rouge (VAR), Visa Verte (VAV), Darcy Rouge (DYF) and Record (REC). The modification took place in October.

- Size change:

  Ambassador Italy: KS modified version started in September with tipping paper width increased from 24 to 25 mm (aspect standardization). Filter length remained at 20 mm.
  LS version will be abandoned in November 1988.

  In the same context, modifications of products are also planned for:

  Diana Italy (KS versions DIK and DIS) in October 1988. LS cigarettes DIF (Full Flavor) and DIM (Mild) will then be withdrawn (end 1988).

  Mercedes (MEK) Italy.

  MLF Austria in February/March 1989 with a filter length increased from 20 to 23 mm and a tipping paper width from 24 to 26 mm.

NEW PRODUCTS

New specifications were issued for :

- MLM (Lights Menthol) Finland: Launch on market in August 1988.

- LMB (L & M LS) Hungary: Launch in September 1988.

The launch of CEG (Chesterfield KS) cigarette planned to start in October in Reunion is postponed for the moment.

2021607559

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

MONITORING REPORT

A new presentation of the Monitoring Report has been prepared with more detailed information concerning each product manufactured under license or under contract manufacture. The new report will be issued end of October, beginning of November 1988.

A.-M. Kopp

AMK/October 17, 1988
qr388pmlamk

2021607560

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : MANUFACTURING SERVICES GROUP

SUBJECT TITLE : PRODUCT MONITORING AND CHANGES (AFFILIATES)

PERIOD COVERED : JULY - SEPTEMBER 1988

WRITTEN BY : Bel-T. (THB)
Flury-C. (CAF)

KEYWORDS : product,specifications,monitoring, quality,improvement,implementation, modifications,changes,cigarette

---

OBJECTIVE

Monitor product quality and implement cigarette construction modifications when necessary, to ensure that the quality objectives and specifications of the product are met.

RESULTS (IMPLEMENTED PRODUCT MODIFICATIONS)

During the 3rd quarter 1988, 16 cigarette and 63 filter product specifications were written. Six cigarette specifications were withdrawn, amongst them the last Muratti Ambassador products in 80 mm length.

The following important product changes were implemented:

MEU03/06 Merit Ultra, ex PMH, with cigarette paper 110-6 (2.5) replaced by 110-6 HFE (2.5).

MEU05 , MLT01 and MRB01, ex FTR, with modified filter RTDs, to adjust smoke deliveries.

MHC06/12 Marlboro 100s, ex PMG, with tipping 3/50 replaced by 4/40, to increase tar delivery.

MLX01/02, MLX13 as well as PML02, ex PMH, with reduced filter RTD, to increase the tar delivery.

BSX02, MLI01 and MLX12, all es PMG, with modified filter RTDs, to adjust smoke deliveries.

MHL01, ex PMG, with increased tipping perforation, to reduce smoke nicotine delivery.

2021607561

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

PLANS (AUTHORIZED MODIFICATIONS)

The following main modifications are approved, but not yet introduced:

MAB01/MAH01	Replacement of Baumgartner PSP filter with Bollore plug wrap, by a filter with our standard plug wrap Schoeller & Hoesch FU-POV 9500. This change will make it necessary to adapt the tipping paper perforation, from 3/50 to 3/60. For the moment, base paper Blancophan 36A is maintained. Implementation planned 1st half November, 1988.
MAG02/MAT01	Filter Baumgartner PSP with S&H 9500 (see also MAB/MAH). For these two products, the Malaucène tipping perforation will pass from 4M 0.15.4.5 to 4M 0.22.7.5. At the same time, Malaucène's new base paper for high-speed makers, Aquafuge LS 944 BNG, will be used. Implementation planned in November/December.
Raffles RAH	Change of blend. Implementation planned on October 3,1988. This change will make it necessary to adapt the perforation of the tipping paper, from 3/10 to 3/20. This will be implemented later on.
PMU05 (DB)	Modified filter (composition of semis and RTDs), to achieve product improvement.

T. Bel C. Flury

CAF/October 11, 1988
qr388pmthb

2021607562

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607563

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

DIVISION : EDP SUPPORT

SUBJECT TITLE : COMPUTER APPLICATIONS

PERIOD COVERED : JULY-SEPTEMBER 1988

WRITTEN BY : Clark-D. (DOC)

KEYWORDS : COLDAC, electronic agenda, quality audit, TLA, data base, cigarette modelling, simulation, TLA sample control, CIR applications.

CICS-2 for R&D

We have decided to use the second CICS production system for all R&D applications. The migration from CICS-1 to CICS-2 will be done on an "application by application" basis over the next twelve months. This decision was initially forced by the use of CSP for our new/modified applications, but provides a useful separation of responsibility for R&D versus FTR applications, especially considering the move to the European Data Center during 1989.

TLA - TOBACCO LOT ANALYSIS
TQA - TOBACCO QUALITY AUDIT

Modification / re-implementation of the entire set of programs for the TLA group has been completed and tested. Transfer into production is scheduled for mid-October, with the new application for the TQA (Tobacco Quality Audit).

PROJECT-COST/REBILLING APPLICATION

This entire application has been re-written in CSP (Cross-System Product from IBM). Modifications and enhancements were made as required by the users. Transfer into production required development of new procedures for CSP generated applications. These are being coordinated with the European Data Center Group in Lausanne.

2021607564

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

NON-TOBACCO MATERIAL INSPECTION

Business-level definition, including Data Flow Diagrams, of the Non-Tobacco Material Inspection area have been developed with the users. A fairly good understanding of the requirements for the routine activities in this area is now available. An Affiliate-level application needs to be developed for their day-to-day activities, which will be coordinated - if possible - with activities at other affiliates. Additionally, a European data-base with analysis and reporting capabilities for data from all affiliates needs to be developed. Program design has begun, with the objective of a first operational system by year-end. Obviously, coordination with all other affiliates for their local aspects will require assistance from Lausanne and extend well into 1989.

SMOKING LAB/QC AUTOMATION

Our DEC/VAX system for the Smoking Lab Automation project has been received and installed. A common DEC/Vax development system with FTR has also been received and installed.

We received and loaded the Holland developed version of the Beckman CALS system. We also received and installed the newest release (6.3) of the basic Beckman CALS system. Several training courses from Beckman and from Digital Equipment have been followed by our MIS development staff. Smoking lab supervisors who are involved in this project have received some training and an additional week's course at Beckman in England is scheduled for the end of October. Definitions of the data base, tests, and screen images will be actively begun end of October when the users have completed their training course.

The TETA (Technicon Tobacco Analysis) workstation, based on a "standard" IBM-PC has been modified and installed in Holland for their CALS-based Smoking Lab Automation system. Communication between the systems works well. "Final" modifications will be made during October, at which time this workstation will be considered "completed" for the European project.

The programming of the DIGIMETRY workstation in LIL for the CO/NO instrument has been "completed". Electrical modification of the instrument to replace the BCD Digital voltmeters with RS-232 output digital voltmeters is underway. Problems were encountered with the first units we received, and replacements should be available about end-November. Final developments and testing of the workstation will be done at that time.

2021607565

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

The Ungermann-Bass Net-One LAN has been extended to the R&D building for development and testing of the Vax-CALS system. Extension to the Smoking Lab area will await modification to that building.

Our temporary help of an additional person for 6 months to assist with the implementation of the Beckman CALS system for the Smoking Lab ended in July. His assistance helped greatly with this project, especially all aspects related to network communication.

COLDAC SMOKING LABORATORY SYSTEM

We have experienced many minor (and some not so minor) problems with the current hardware and software. Obviously, the system is beginning to show its age - and possibly its attitude about being replaced. The current schedule calls for the new system based on VAX and Beckman CALS to be operational by April 1989, so minimum effort will be expended on modifications to the old system.

HARDWARE/SOFTWARE - INSTALLED/ORDERED

4 IBM-3192-G (Graphics) Terminals received and installed
4 IBM-PS/2 systems received and installed
1 IBM-3812 Laser printer received and installed.

PROFS TRAINING

Twenty additional users were trained during this period. There are now 77 "userids" and 90 "nicknames" in R&D.

DATA RESOURCES MANAGEMENT

Work has continued slowly on this revision of the PME Reference-of-Codes. Input has been supplied to Lausanne for the definition of the chapter concerning Cigarette code. A brief presentation of the new software product SPITAB, to be used for this project, was received from Lausanne.

2021607566

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

STRATEGY: MARKETING DATA BASE

The strategy system being used by the Lausanne-EEC Marketing Department has been installed on a PC here in Neuchâtel for the Product Development Division. Many difficulties were encountered, especially with managing the HP laserjet printer. The tool is now under evaluation by the user department.

CDB - Cigarette Data Bank

Most of the modifications to this set of programs have been made and are in production. A few additional "cosmetic" changes remain which will be incorporated as soon as time permits. The major remaining activities relate to management of materials - which is directly related to the Incoming Materials project; improved reporting capabilities - which relates to replacement of APLDI with FOCUS; and replacement of the DL/1 data base - which is related to transfer of this application to the European Data Center in 1989. The schedule for addressing these issues will be defined in the 4th quarter.

CIM = CIGARETTE-INSPECTION-MODULE-EVALUATION

A significant amount of effort has been expended on supporting the data analysis from the European Cigarette-Inspection-Module study. Many statistical treatments of the data were performed, and an interim report was written with the project leader responsible for this project. The final report for this phase of the study is being prepared now.

DOC/ell/12.10.88

2021607567

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000

2021607568

Source: https://www.industrydocuments.ucsf.edu/docs/lthm0000